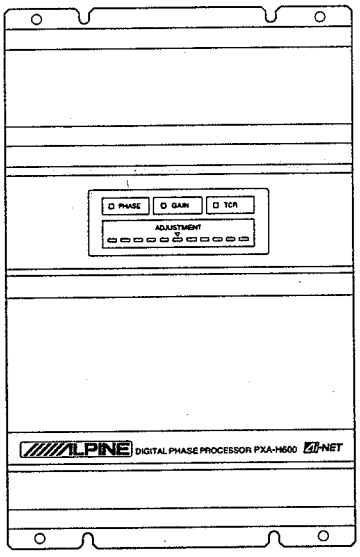
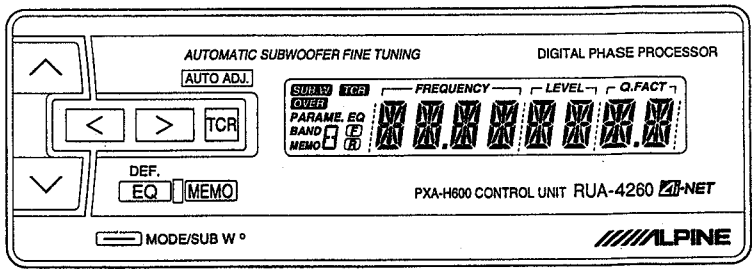
ALPINE®

SERVICE MANUAL

Digital Phase Processor





Hi-NET

サービス費用区分	D
技術資料No.	PL-03-O

PXA-H600

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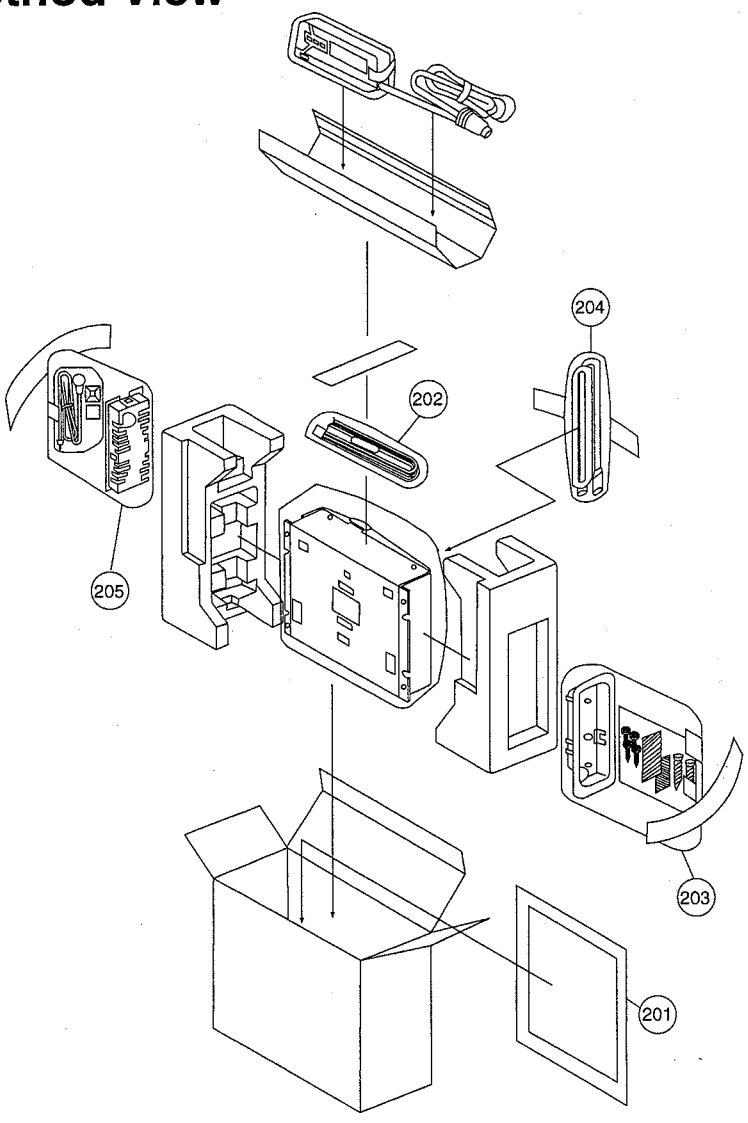
Packing Assembly Parts List

Symbol No.	Part No.	Description
○ 201	68P91666W11	Owner's Manual
△ 201	68P91666W24	Owner's Manual
□ 201	68P91666W26	Owner's Manual
202	01E26554S01	Assy., Power Supply Connector
203-1	03E11447S01	Screw, TPG1 (M4X14)
203-2	03E25256S01	Screw, Tapping (M2.9X20)
203-3	15E25453S01	Case, Flash Mount
203-4	54E25442S01	Magic Tape
204	01T55561W32	Assy., Ai-NET Cable
205-1	07E25452S01	Bracket, Mount

Symbol No.	Part No.	Description
205-2	01E26553S01	Assy., MIC

NOTE: ○: For North American Model Only, △: For General Foreign Model Only,
□: For Japanese Model Only, Others : Common.

Packing Method View

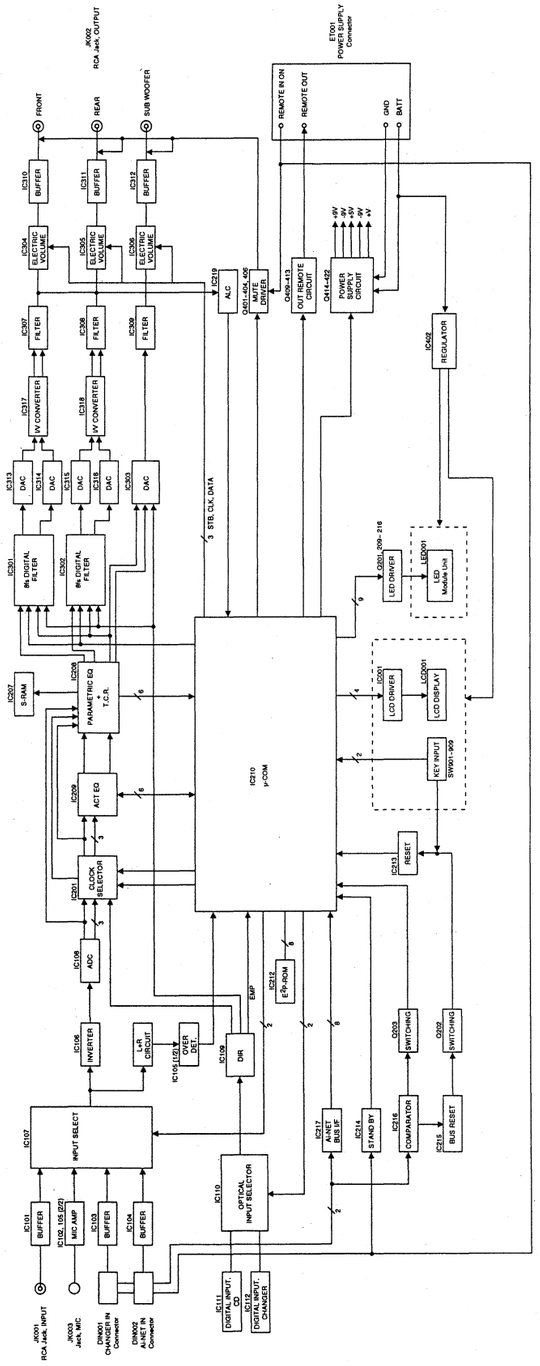


Specifications

Power Supply	DC14.4V (11～16V)
Total Harmonic Distortion (2V Output, 30kHz L.P.F.)	DIGITAL IN MODE, Front · Rear (1kHz) : 0.1%
	SUB W. (127Hz) : 0.1%
	ANALOG IN MODE, Front · Rear (1kHz) : 0.1%
	SUB W. (50Hz) : 0.1%
Output Level (0.85V Input)	Front · Rear (1kHz) : 3.5V±2dB
	SUB W. (50Hz) : 3.4V±2dB
Residual Noise	DIGITAL IN MODE, Front · Rear (S/N 100dB at 4V) : 40μV
	SUB W. (S/N 100dB at 4V) : 40μV
	ANALOG IN MODE, Front · Rear (S/N 86dB at 4V) : 200μV
	SUB W. (S/N 100dB at 4V) : 40μV
Frequency Response	Front · Rear (Ref. 1kHz, 40Hz～15kHz) : 0±1dB
	SUB W. (Ref. 50Hz, 40Hz～100Hz) : 0±1dB
Channel Separation (Input Shorted)	60dB
Current Drain (at no signal)	1.5A
Input Impedance (Each Channel)	10k ohm
Output Impedance (Each Channel)	1k ohm
Semi-Conductors	48IC's, 45Transistors, 29Diodes, 15Zener Diodes
Dimensions (W×H×D)	Main Unit : 240×50×160mm
	Control Unit : 113×19×39.5mm
Weight	Main Unit : 1.55kg
	Control Unit : 0.35kg

NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.

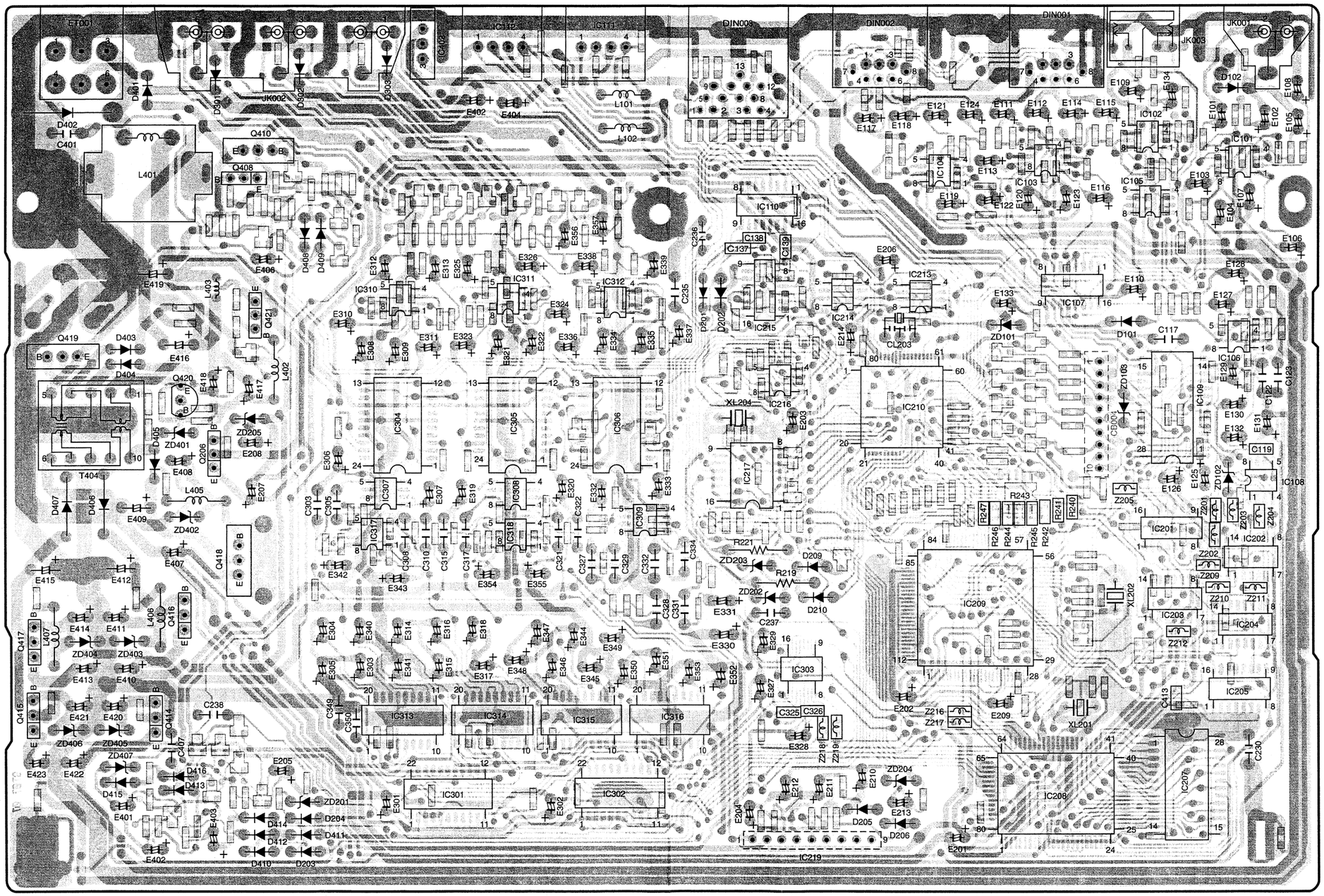
Block Diagram



MEMO

Parts Layout on P.C. Boards and Wiring Diagram (1/3)

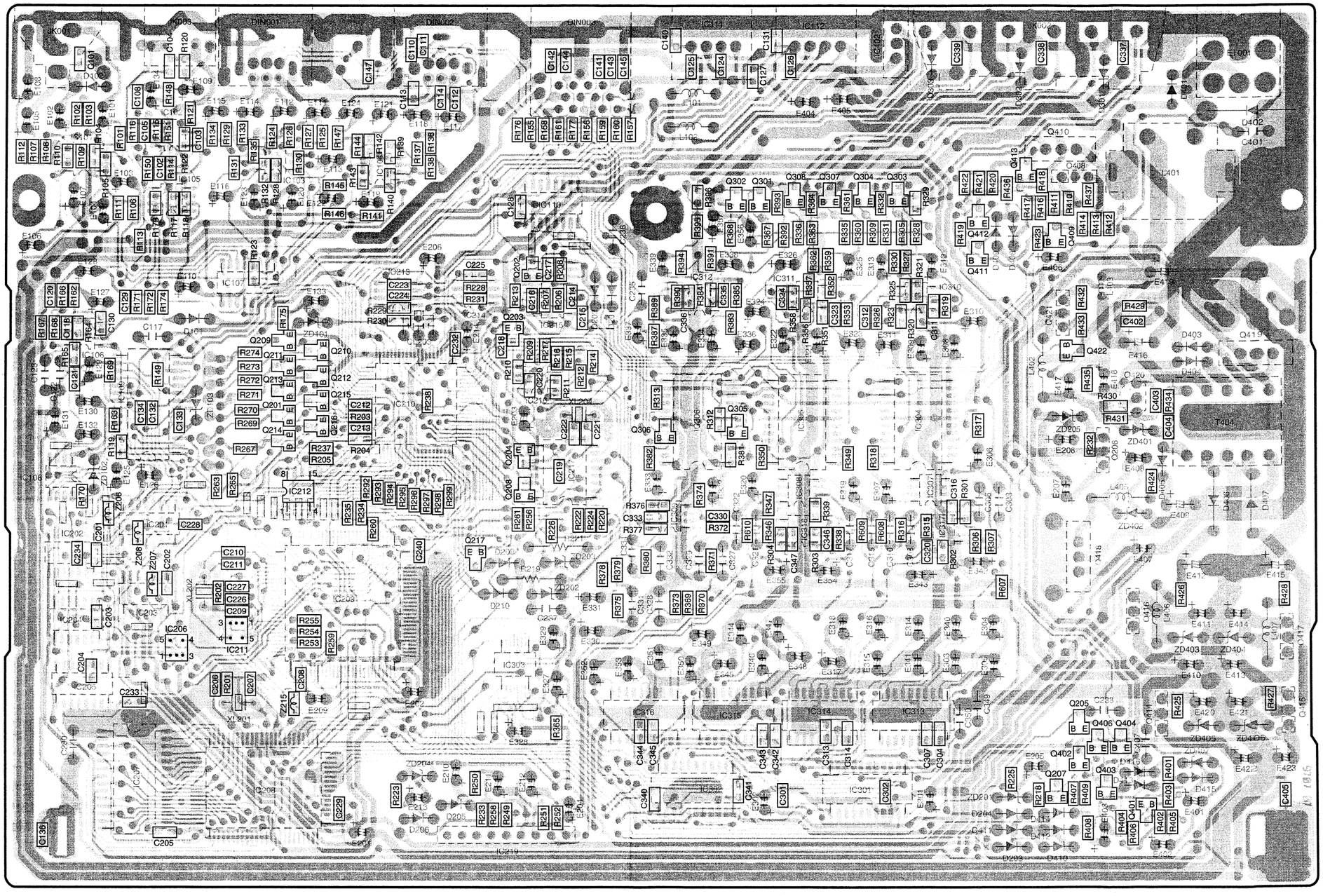
Main P.C.Board (Component Side View)



Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern

Parts Layout on P.C. Boards and Wiring Diagram (2/3)

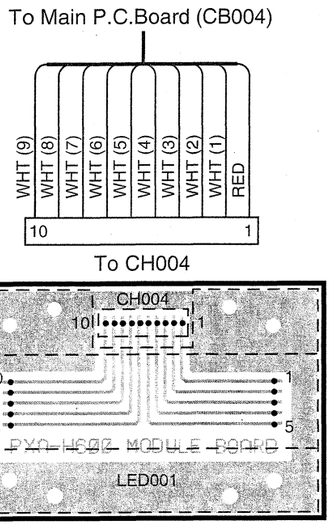
Main P.C.Board (Foil Side View)



Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern

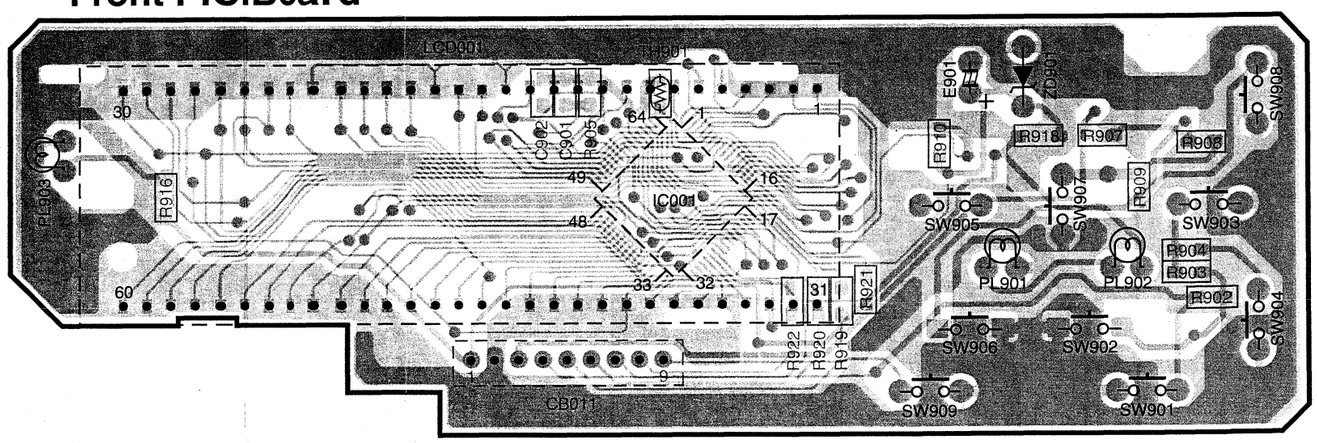
Parts Layout on P.C. Boards and Wiring Diagram (3/3)

All P.C. Boards viewed from soldered side.

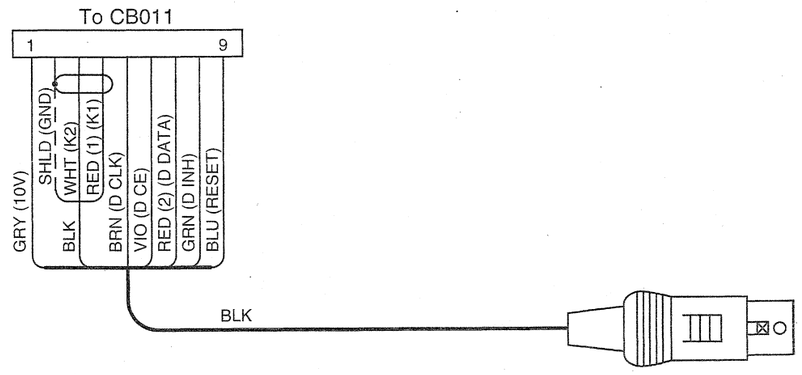


LED Module P.C.Board

Front P.C.Board



To CB011



ET011
Assy., 13P Connector
(To Main Unit)

Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern

Schematic Diagram (1/6)

IC	IC101	IC103 IC104	IC107	IC102(2/2)	IC106 IC105(1/2) IC102(1/2)	IC105(2/2)	IC202 IC201	IC108	IC206	IC205	IC203 IC204

Main P.C.Board (1/6)

Z201~215:BK2125HS601

JK001 RCA Jack, INPUT

JK003 Jack, MIC

DIN001 CHANGER IN Connector

DIN002 Ai-NET IN Connector

IC101 NJM4560M

IC102 NJM4560M

IC103 NJM4560M

IC104 NJM4560M

IC105 NJM4560M

IC106 NJM2100M

IC107 MC14052BFL1

IC108 CS5330

IC201 μPD74HC157F

IC202 HD74HC04FP

IC203 HD74HC164FP

IC204 HD74HC164FP

IC205 MC74HC4020F

IC206 TC7S08F

BUFFER

INVERTER

INPUT SELECT

MIC AMP

OVER DET.

LEVEL CONVERTER

BINARY TO 1-OF-4 DECODER WITH INHIBIT

VOLTAGE REFERENCE

COMPARATOR

LP FILTER

DAC

DIGITAL DECIMATION FILTER

HIGH PASS FILTER

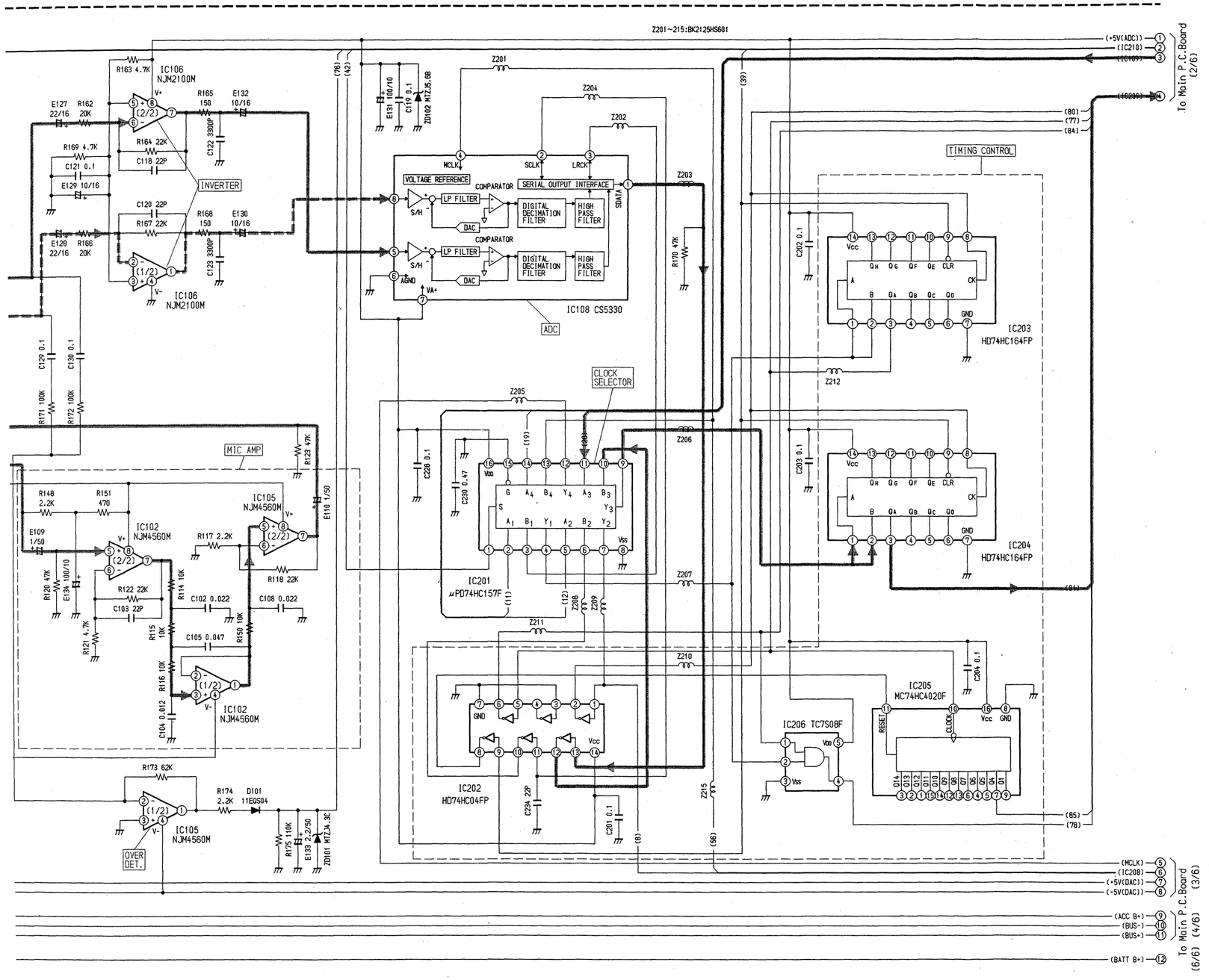
SERIAL OUTPUT INTERFACE

ADC

CLOCK SELECTOR

TIMING CONTROL

IC106 IC102(2/2) IC105(1/2) IC102(1/2) IC105(2/2) IC108 IC202 IC201 IC206 IC205 IC203 IC204



IC101~105

1–3	0V
4	-5.2V
5–7	0V
8	5.2V

IC106

1–3	2.6V
4	0V
5–7	2.6V
8	5.1V

IC107

1–6	0V
7	-5.2V
8	0V
9	5.2V
10–15	0V
16	5.2V

IC108

1	0V
2	5V
3	0V
4	2.5V
5	2.3V
6	0V
7	5.2V
8	2.4V

IC201

1	5.2V
2–7	2.6V
8	0V
9, 10	3.7V
11	0V
12–14	2.5V
15	0V
16	5.1V

IC202

1	2.5V	8	0V
2	2.6V	9	5.1V
3	0V	10	2.6V
4	NC	11	2.6V
5	1.8V	12	3.7V
6	2.6V	13	1.5V
7	2.6V	14	5.1V

IC203

1–3	2.6V
4–6	NC
7	0V
8, 9	2.6V
10–13	NC
14	5.1V

IC204

1–3	3.7V
4–6	NC
7	0V
8	2.5V
9	5.1V
10–13	NC
14	5.1V

IC205

1–6	NC
7	2.6V
8	0V
9	NC
10	2.6V
11	0V
12–15	NC
16	5.1V

IC206

1	2.6V
2	2.6V
3	0V
4	0V
5	5.1V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input

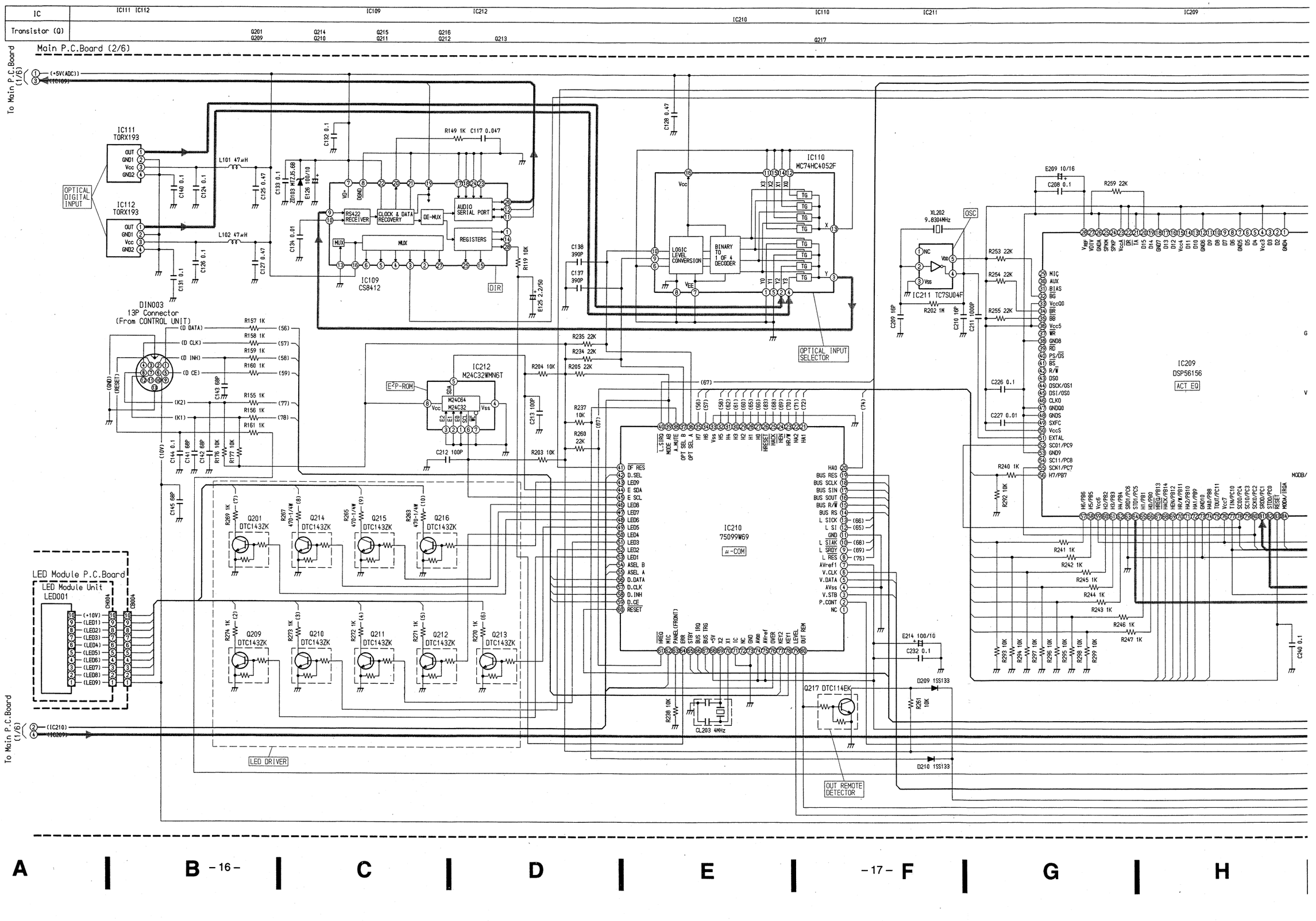
NOTE:

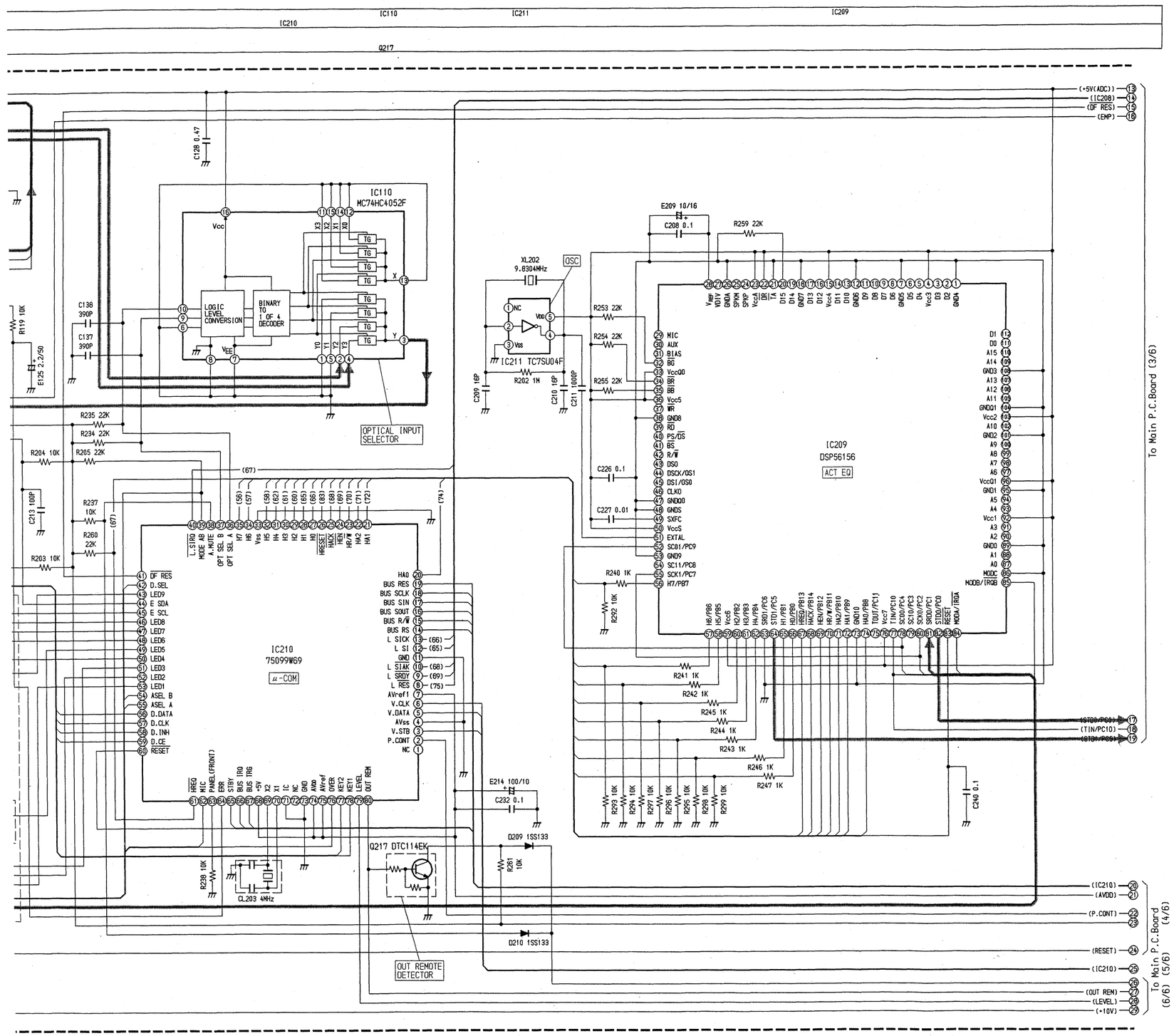
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

D E F –14– G H I J –15– K

PXA-H600 PXA-H600

Schematic Diagram (2/6)





IC109

1, 2	NC	16	5.1V
3	5.1V	17, 18	0V
4–6	NC	19	2.4V
7	5.2V	20, 21	0V
8, 9	0V	22	5.1V
10	1.7V	23, 24	0V
11	2.6V	25	NC
12	2.5V	26	0V
13	0V	27	NC
14, 15	NC	28	5.1V

IC110

1–15	0V
16	5.1V

IC111, 112

1	0V
2	0V
3	5.1V
4	0V

IC209

1	0V	27	NC	64	4.1V	87, 88	NC
2, 3	NC	28	3.8V	65, 66	0V	89	0V
4	3.5V	29	NC	67	5.1V	90, 91	NC
5, 6	NC	30	NC	68	5.2V	92	5.1V
7	0V	31	NC	69	5.2V	93, 94	NC
8–11	NC	32–36	5.2V	70	5.2V	95	0V
12	0V	37	NC	71–74	0V	96	5.1V
13, 14	NC	38	0V	75	NC	97–100	NC
15	5.1V	39–46	NC	76	5.1V	101	0V
16, 17	NC	47–49	0V	77	2.6V	102	NC
18	0V	50	5.1V	78	0V	103	5.2V
19	NC	51	2.6V	79	NC	104	0V
20	0V	52, 53	0V	80	2.6V	105	NC
21	0V	54	NC	81	3.1V	106, 107	NC
22	5.1V	55	2.6V	82	2.6V	108	0V
23	5.2V	56–58	0V	83	5.2V	109, 110	NC
24, 25	NC	59	5.1V	84, 85	2.6V	111, 112	NC
26	0V	60–63	0V	86	0V		

IC210

1	NC	40	5.2V	64, 65	5.2V	1
2	5.1V	41	5.1V	66	5.1V	2
3, 4	0V	42, 43	5.2V	67	0V	3
5	5.2V	44, 45	0V	68	5.2V	4
6	0V	46–48	5.1V	69	3.1V	5
7–10	5.2V	49–53	0V	70	2.8V	
11, 12	0V	54	5.2V	71	0V	
13–15	5.2V	55	0V	72	NC	
16	2.7V	56	3.2V	73	0C	
17	0V	57	0V	74, 75	5.2V	
18, 19	5.2V	58	5.2V	76	0V	
20–22	0V	59	0V	77, 78	5.1V	
23–26	5.2V	60	5.2V	79	0V	
27–37	0V	61	5.1V	80	5.1V	
38	4.3V	62	5.2V			
39	5.1V	63	0V			

IC211

1	5.2V
2	2.5V
3	0V
4	2.1V
5	5.1V

IC212

1–7	0V
8	5.1V

	E	C	B		E	C	B
Q201	0V	0V	5.1V	Q213	0V	0V	0V
Q209	0V	0V	0V	Q214	0V	0V	5.1V
Q210	0V	0V	0V	Q215	0V	0V	5.1V
Q211	0V	0V	0V	Q216	0V	0V	5.1V
Q212	0V	0V	0V	Q217	0V	0V	5.2V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input

NOTE:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

Schematic Diagram (3/6)

IC	IC207 IC208	IC301	IC313 IC314	IC302

Main P.C.Board (3/6)

To Main P.C.Board (1/6) (2/6)
- (13) (+5V(ADC))
- (15) (DF RES)
- (16) (EMP)
- (6) (MCLK)
- (7) (+5V(DAC))
- (8) (-5V(DAC))

S-RAM
IC207 SRM2B256SLMX70
ADDRESS BUFFER
ROW DECODER
MEMORY CELL ARRAY 512×64×8
COLUMN DECODER
COLUMN GATE
CS CONTROL LOGIC
OE,WE CONTROL LOGIC
I/O BUFFER

IC208
LC83015J
PARAMETRIC EQ + T.C.R

XL201 22.5792MHz
R201 1M
Z216
Z217
Z216,217 :BK2125HS601

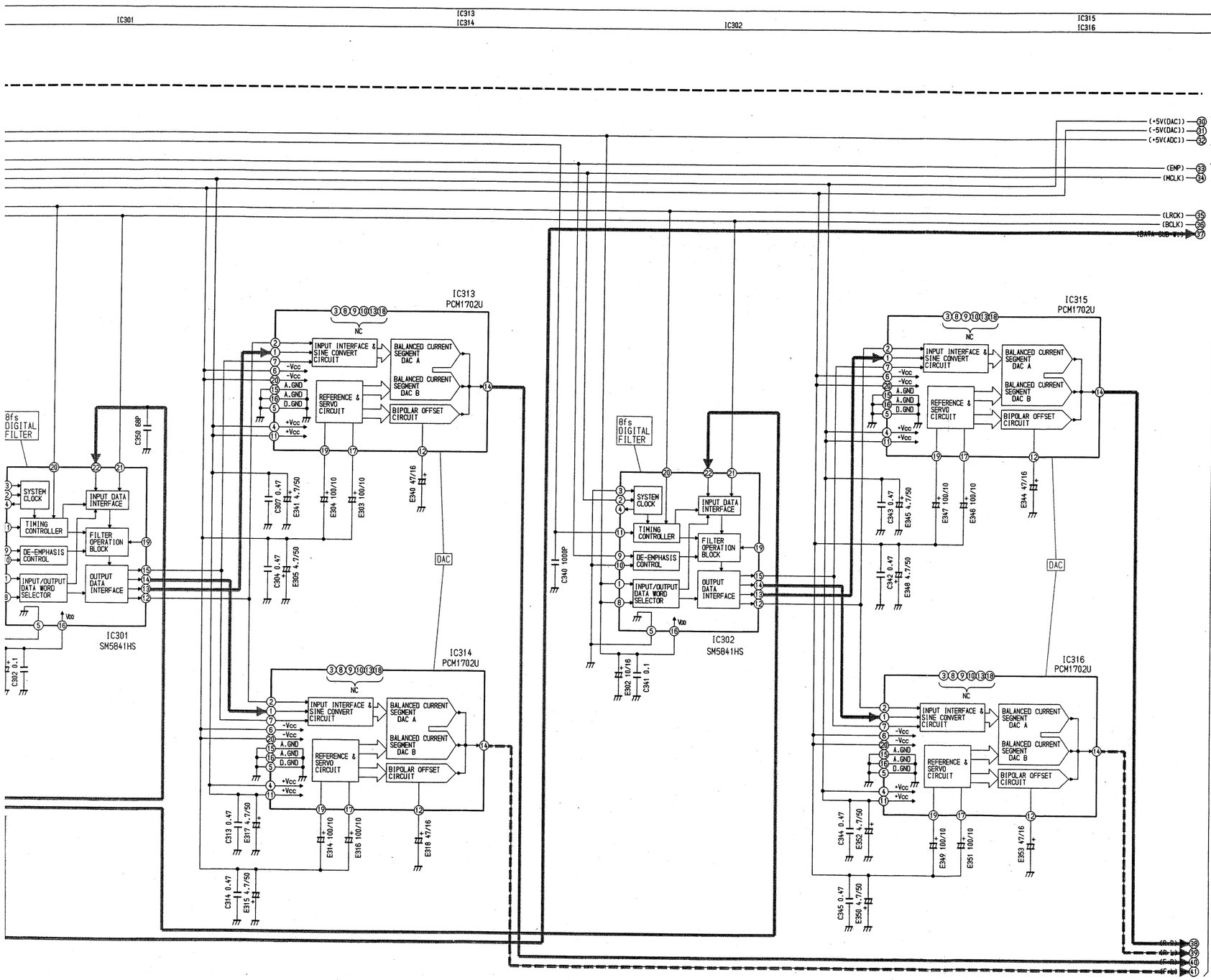
8fs DIGITAL FILTER
SYSTEM CLOCK
TIMING CONTROLLER
DE-EMPHASIS CONTROL
INPUT/OUTPUT DATA WORD SELECTOR
INPUT DATA INTERFACE
FILTER OPERATION BLOCK
OUTPUT DATA INTERFACE
IC301 SM5841HS

IC313 PCM1702U
IC314 PCM1702U
NC
INPUT INTERFACE & SINE CONVERT CIRCUIT
REFERENCE & SERVO CIRCUIT
BALANCED CURRENT SEGMENT DAC A
BALANCED CURRENT SEGMENT DAC B
BIPOLAR OFFSET CIRCUIT
DAC

IC302 SM5841HS

To Main P.C.Board (2/6)
To Main P.C.Board (1/6)
- (IC208)
- (IC208)

A | B | C | D | E | F | G | H



IC207

1–6	2.5V	19	3.1V
7–10	2.6V	20	4.3V
11–13	4.6V	21	0V
14	13.5V	22	4.7V
15	1.3V	23–26	2.6V
16	4.2V	27	5V
17	2.7V	28	5.1V
18	3.6V		

IC208

1–6	NC	32	3.1V	61	NC
7	2.6V	33	13.8V	62	2V
8	2.5V	34–40	2.6V	63	1.9V
9	1.9V	41–47	2.5V	64	3.3V
10	1.8V	48	0V	65	4.4V
11	3.7V	49, 50	NC	66	5.2V
12	2.5V	51	5.1V	67	5.2V
13	5.1V	52	2.5V	68, 69	5.1V
14–18	0V	53	2.4V	70–73	NC
19–21	NC	54	0V	74	0V
22–24	5.1	55	NC	75	5.2V
25–27	4.5V	56	2.5V	76	NC
28	1.1V	57	NC	77–79	5.1V
29	4.1V	58	2.7V	80	0V
30	2.8V	59	NC		
31	3.2V	60	0V		

IC301, 302

1	5.1V	11	5.2V
2	2.6V	12	1.3V
3	0V	13, 14	0V
4	NC	15	4.2V
5	0V	16	5.2V
6, 7	NC	17–19	NC
8	5.2V	20	2.6V
9	5.1V	21	2.7V
10	0V	22	2.2V

IC313~316

1	0V	11	5.2V
2	1.3V	12	2.7V
3	NC	13	NC
4	5.2V	14–16	0V
5	0V	17	-2.1V
6	-5.2V	18	NC
7	4.2V	19	-2.7V
8–10	NC	20	-5.2V

[Measuring Conditions]

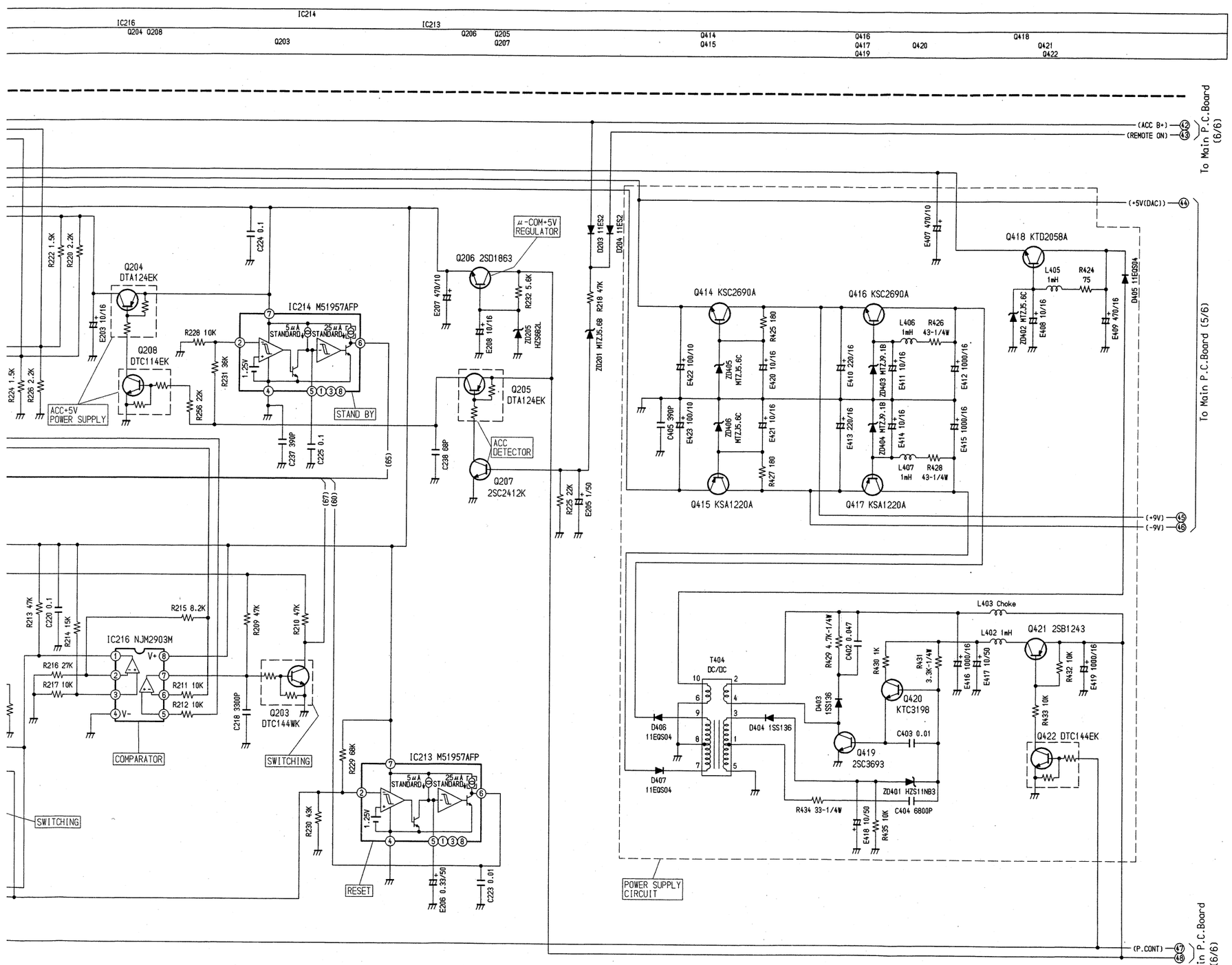
- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input

NOTE:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

Schematic Diagram (4/6)

| IC | IC217 | IC215 | IC216 | IC214 | IC213 | | |



IC213

1	NC
2	2V
3	NC
4	0V
5	1.2V
6	5.1V
7	5.2V
8	NC

IC214

1	NC
2	3V
3	NC
4	0V
5	1.2V
6	5.2V
7	5.2V
8	NC

IC215

1, 2	0V	9	NC
3	5.1V	10	0V
4	0V	11	4.4V
5	4.8V	12	0V
6	0V	13, 14	5.2V
7	NC	15	0V
8	0V	16	5.2V

IC216

1	4.8V
2	1.5V
3	2.1V
4	0V
5	3.1V
6	2V
7	2.6V
8	5.2V

IC217

1	5.2V	9	5.1V
2	0V	10	0V
3	0V	11	5.1V
4	5.2V	12	2V
5	1.9V	13	3V
6	1.9V	14	0V
7	5.2V	15	5.2V
8	0V	16	5.1V

	E	C	B		E	C	B
Q202	0V	2V	0V	Q415	-5.2V	-8.1V	-5.9V
Q203	0V	0V	2.6V	Q416	8.2V	9.1V	8.9V
Q204	5.2V	5.1V	0V	Q417	-8.1V	-9V	-8.8V
Q205	14V	14V	0V	Q418	5.8V	7.2V	5.1V
Q206	5.8V	14.1V	5.1V	Q419	0V	14V	0V
Q207	0V	0V	0V	Q420	0V	12.3V	0V
Q208	0V	0V	5.3V	Q421	13.5V	7.2V	5.1V
Q414	5.2V	8.2V	5.8V	Q422	0V	0V	5.2V

[Measuring Conditions]

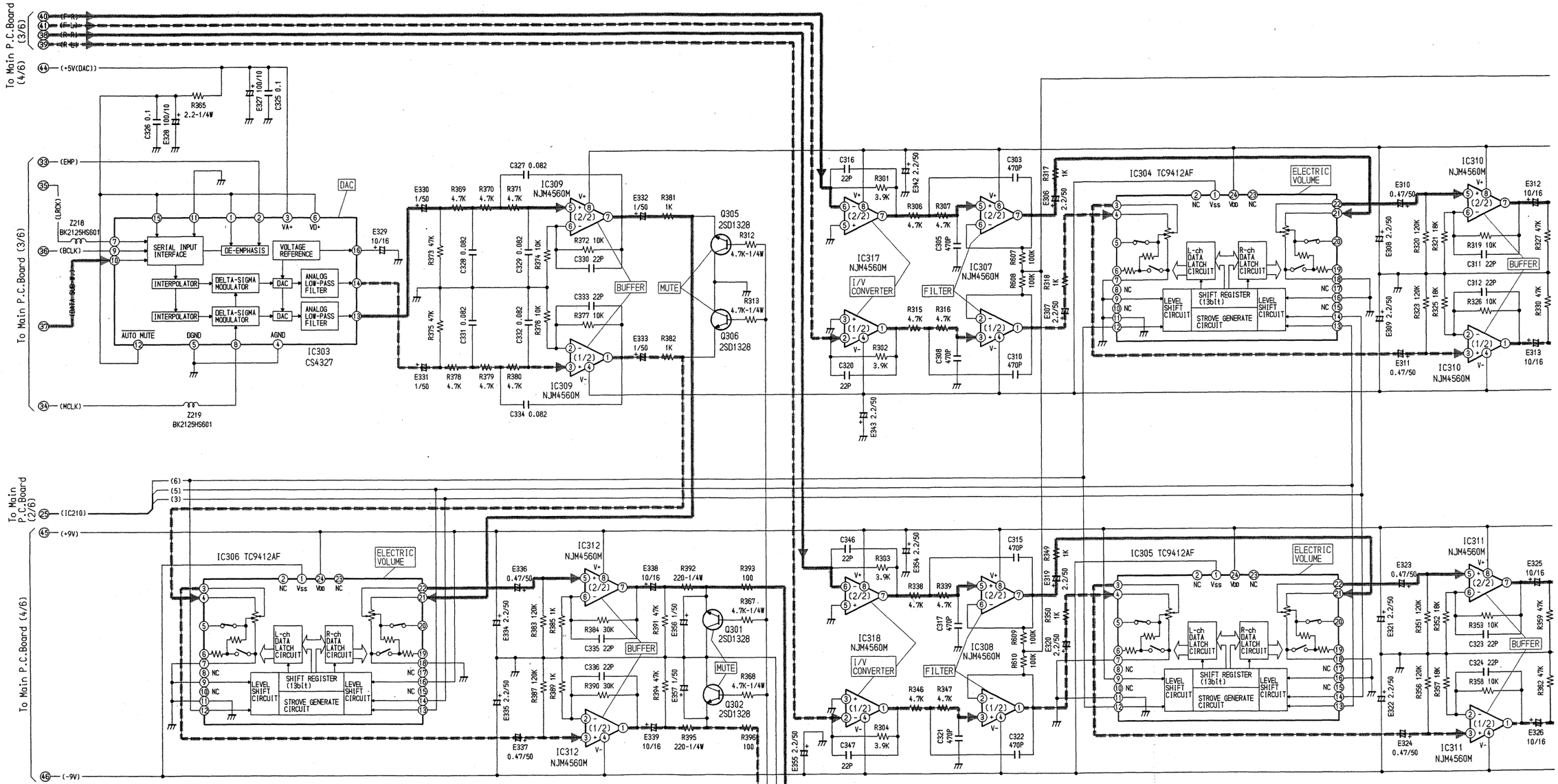
- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input

NOTE:
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$

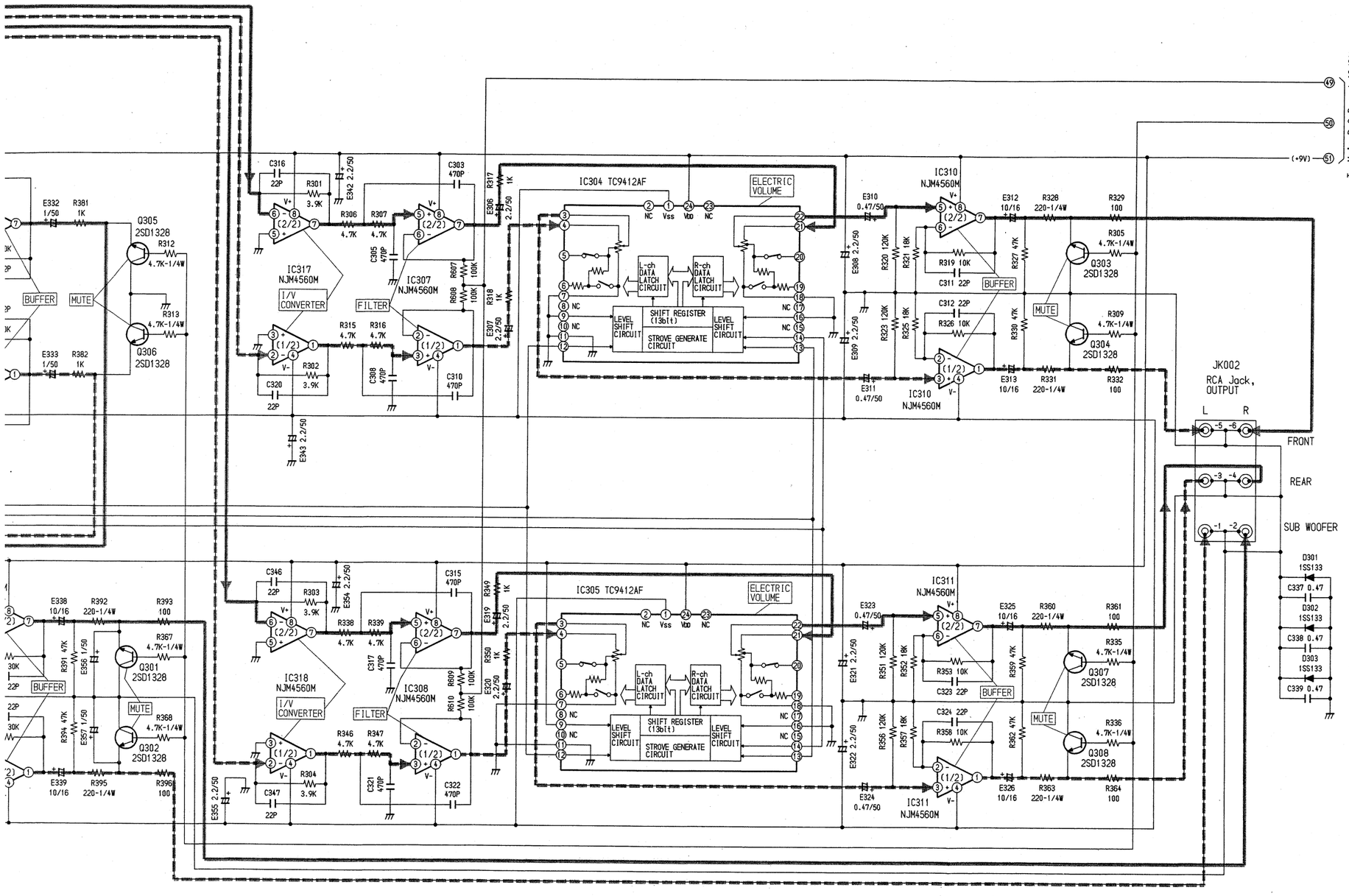
Schematic Diagram (5/6)

IC	IC306	IC303	IC309 IC312		IC317 IC318	IC307 IC308	IC304 IC305	IC310 IC311
Transistor (Q)				Q305 Q306 Q301 Q302				

Main P.C.Board (5/6)



	IC317 IC318	IC307 IC308	IC304 IC305	IC310 IC311	
Q305 Q306 Q301 Q302					Q303 Q304 Q307 Q308



IC303

1	5.2V	9	2.7V
2	5.1V	10	3.2V
3	4.3V	11	0V
4	0V	12	5.1V
5	0V	13	2.2V
6	2.6V	14	2.3V
7	1.7V	15	5.1V
8	2.6V	16	2.2V

IC304

1	-8V	14	0V
2	NC	15	NC
3, 4	0V	16	0V
5, 6	NC	17	NC
7	0V	18	0V
8	NC	19, 20	NC
9	0V	21, 22	0V
10	NC	23	NC
11, 12	0V	24	8.2V
13	5.2V		

IC305

1	-8V	14	0V
2	NC	15	NC
3, 4	0V	16	0V
5, 6	NC	17	NC
7	0V	18	0V
8	NC	19, 20	NC
9	8.2V	21, 22	0V
10	NC	23	NC
11, 12	0V	24	8.2V
13	5.2V		

IC306

1	-8V	14	0V
2	NC	15	NC
3, 4	0V	16	8.2V
5, 6	NC	17	NC
7	0V	18	0V
8	NC	19, 20	NC
9	0V	21, 22	0V
10	NC	23	NC
11, 12	0V	24	8.2V
13	5.2V		

IC307~309, 317, 318

1~3	0V
4	-8V
5~7	0V
8	8.2V

IC310~312

1~3	0V
4	-8.1V
5~7	0V
8	8.2V

	E	C	B
Q301	0V	0V	0V
Q302	0V	0V	0V
Q303	0V	0V	0V
Q304	0V	0V	0V
Q305	0V	0V	0V
Q306	0V	0V	0V
Q307	0V	0V	0V
Q308	0V	0V	0V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input

NOTE:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

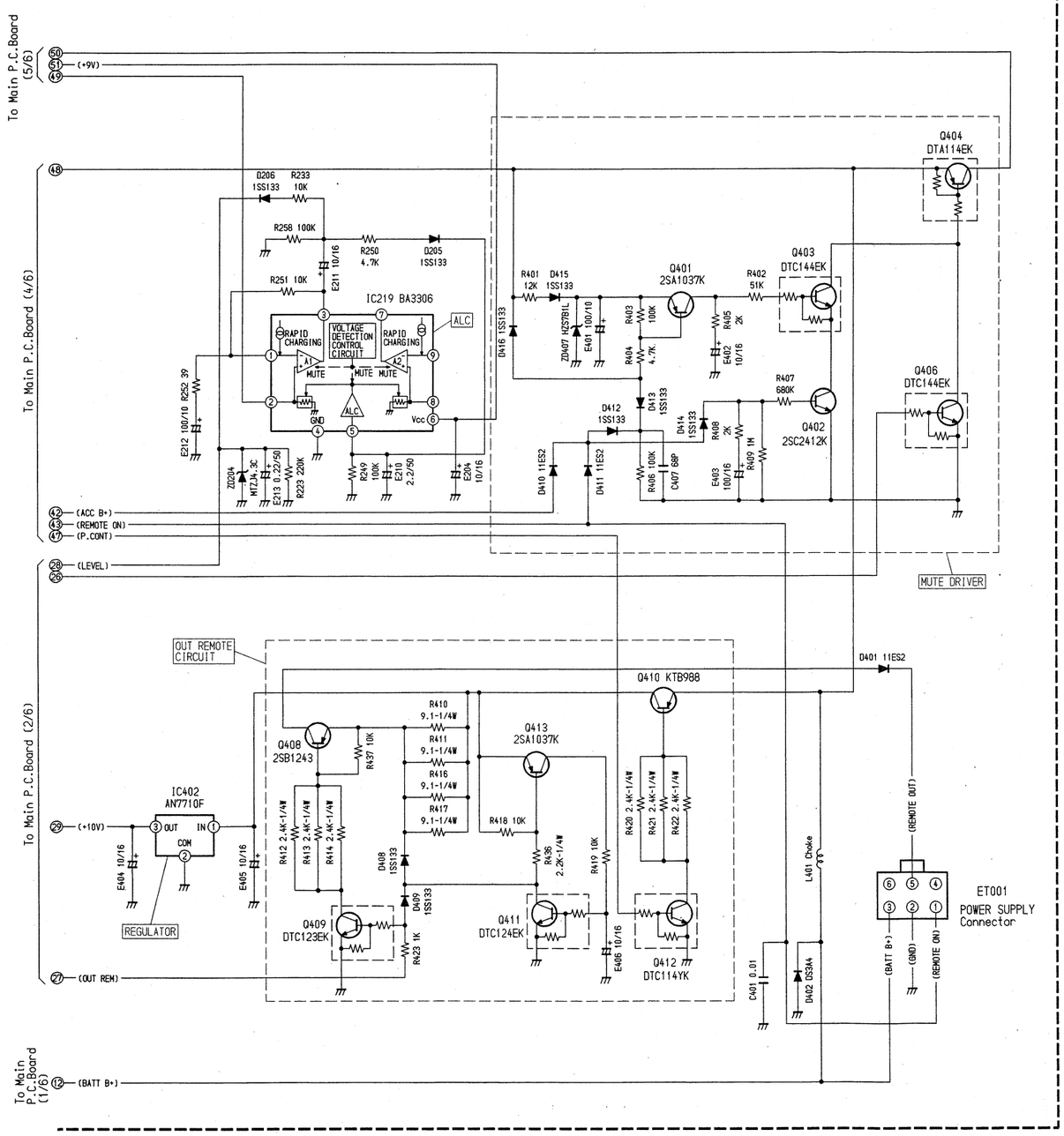
PXA-H600 PXA-H600

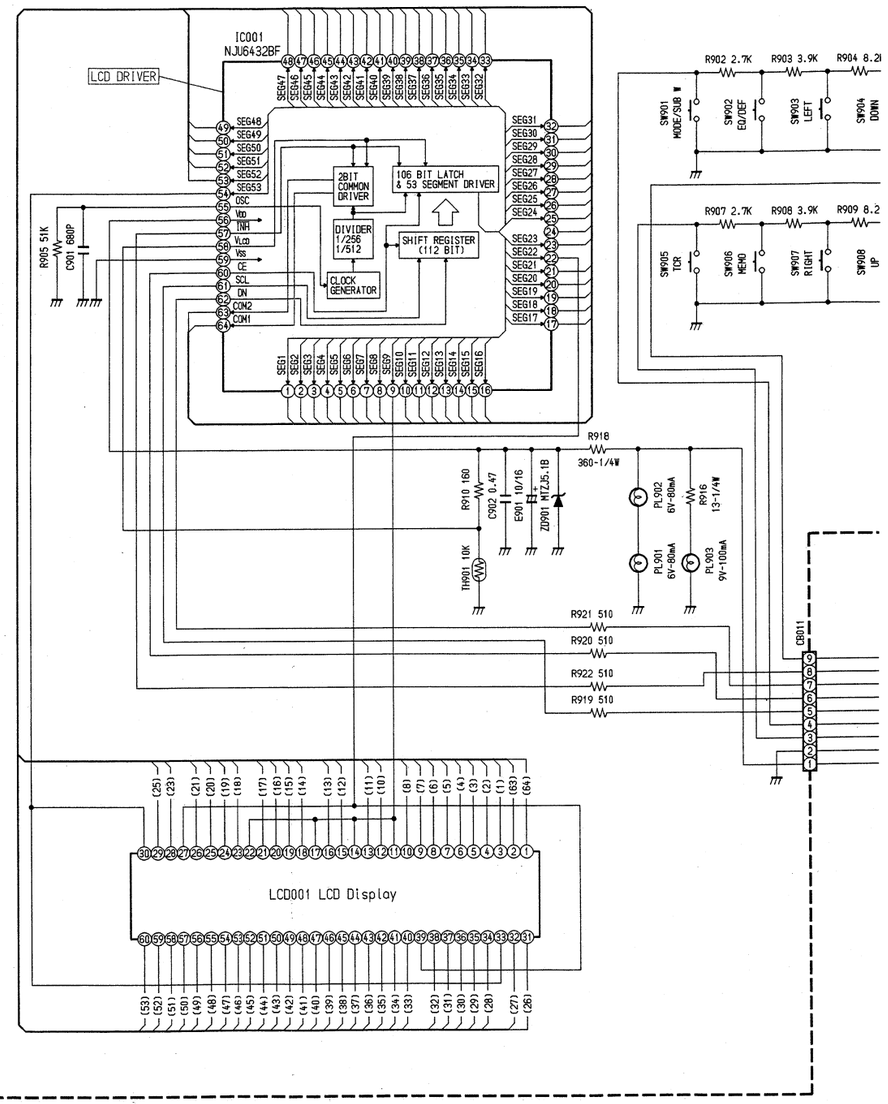
Schematic Diagram (6/6)

IC	IC402	IC219	IC001
Transistor (Q)	Q408 Q409	Q411 Q413 Q401 Q410 Q412	Q403 Q402 Q406 Q404

Main P.C.Board (6/6)

Front P.C.Board

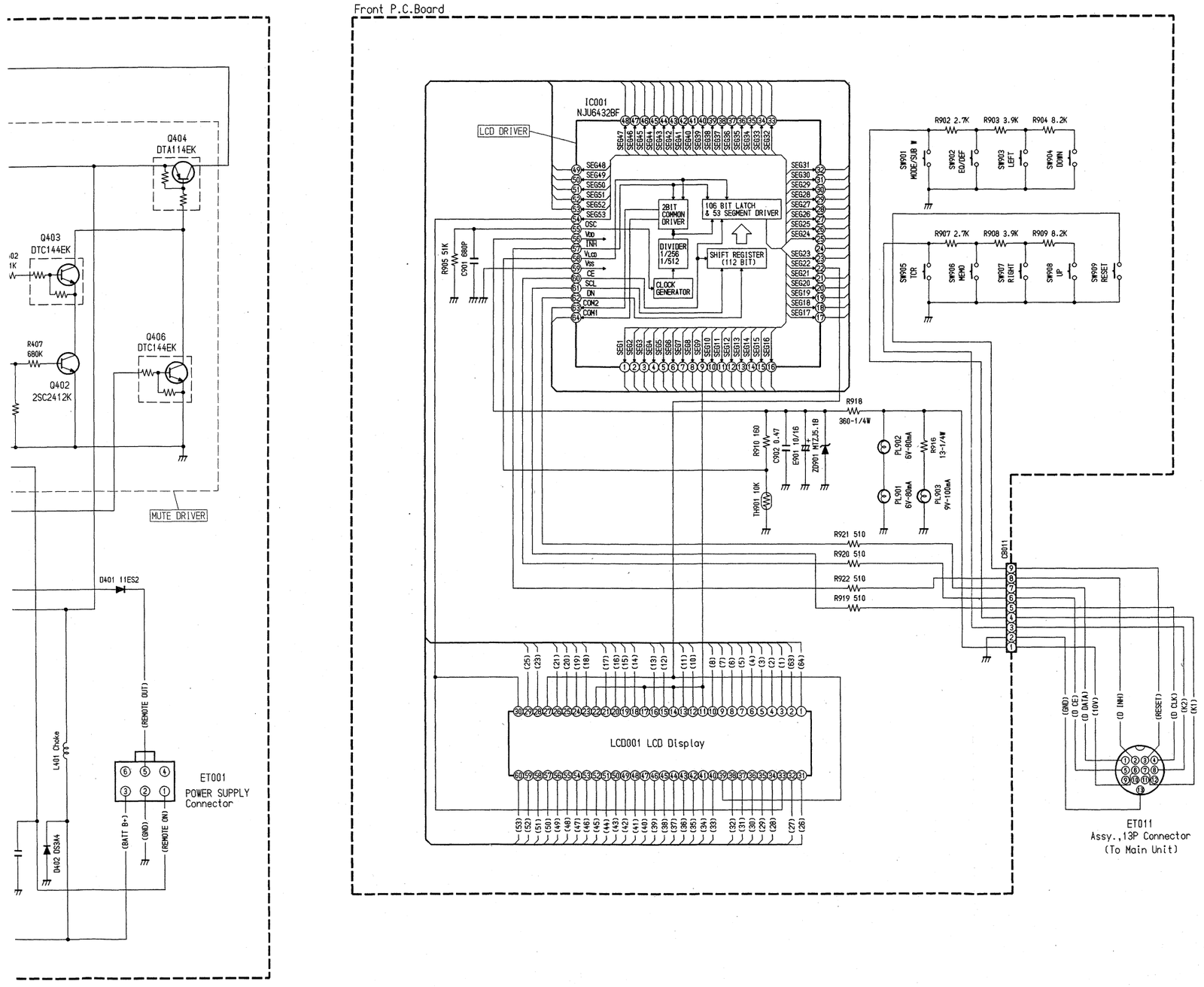




IC001

Q403 Q402 Q406 Q404

Front P.C.Board



IC001

1-23	2.6V
24	NC
25-54	2.6V
55	3.8V
56-58	5.2V
59-61	0V
62	3.2V
63, 64	2.6V

IC219

1	2.6V
2	0V
3	2.6V
4	0V
5	0V
6	8.2V
7	NC
8	NC
9	NC

IC402

1	9.97V
2	0V
3	14.7V

	E	C	B		E	C	B
Q401	7V	0V	6.9V	Q409	0V	14V	0V
Q402	0V	0V	0V	Q410	13.4V	14V	14.1V
Q403	0V	0V	0V	Q411	0V	0V	0V
Q404	14V	14V	0V	Q412	0V	0V	5.2V
Q406	0V	0V	3.9V	Q413	14.3V	0V	13.3V
Q408	14V	0V	14V				

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Conditions : No Signal Input

NOTE:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$

Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : μF=microfarads,pF=picofarads

Abbreviations

RES.= Resistor	CAP.= Capacitor
C.F.= Carbon Film	ELY.= Electrolytic
M.F.= Metal Film	CER.= Ceramic
M.O.= Metal Oxide Film	MYL.= Mylar
M.P.= Metal Plate	TAN.= Tantalum
TR. = Transistor	POLY.= Polystyrol
TRANS.= Transformer	PP. = Polypropylene
CP. = Chip	PLT.= Polyethylene
	PF. = Polyester Film

Symbol No.	Part No.	Description
Main P.C.Board		
IC's		
IC101	51E22130S01	NJM4560M
IC102	51E22130S01	NJM4560M
IC103	51E22130S01	NJM4560M
IC104	51E22130S01	NJM4560M
IC105	51E22130S01	NJM4560M
IC106	51E24381S01	NJM2100M
IC107	51T15630W03	MC14052BFL1
IC108	51T95392W01	CS5330
IC109	51T95394W01	CS8412
IC110	51T65103W01	MC74HC4052F
IC201	51T45229W02	μPD74HC157F
IC202	51T90277F15	HD74HC04FP
IC203	51T90277F14	HD74HC164FP
IC204	51T90277F14	HD74HC164FP
IC205	51T55411W01	MC74HC4020F
IC206	51T15731W08	TC7S08F
IC207	51T95504W01	SRM2B256SLMX70
IC208	51T15005Y01	LC83015J
IC209	51T15006Y01	DSP56156
IC210	51T75099W69	75099W69
IC211	51T15731W06	TC7SU04F
IC212	51T15017Y01	M24C32WMN6T
IC213	51T94896F03	M51957AFP
IC214	51T94896F03	M51957AFP
IC215	51T90267F02	μPD4538BG
IC216	51E23843S01	NJM2903M
IC217	51T55070W04	MB88385APF
IC219	51E22887S01	BA3306
IC301	51T45113W03	SM5841HS
IC302	51T45113W03	SM5841HS
IC303	51T95393W01	CS4327
IC304	51T95524W01	TC9412AF
IC305	51T95524W01	TC9412AF
IC306	51T95524W01	TC9412AF
IC307	51E22130S01	NJM4560M
IC308	51E22130S01	NJM4560M
IC309	51E22130S01	NJM4560M
IC310	51E22130S01	NJM4560M
IC311	51E22130S01	NJM4560M
IC312	51E22130S01	NJM4560M
IC313	51T65512W02	PCM1702U
IC314	51T65512W02	PCM1702U
IC315	51T65512W02	PCM1702U
IC316	51T65512W02	PCM1702U
IC317	51E22130S01	NJM4560M
IC318	51E22130S01	NJM4560M
IC402	51T75191W08	AN7710F
Transistors		
Q201	48E26534S01	CP., DTC143ZK
Q202	48E10426S01	CP., DTC124EK
Q203	48E24364S01	CP., DTC144WK
Q204	48E22092S01	CP., DTA124EK
Q205	48E22092S01	CP., DTA124EK
Q206	48E22911S01	2SD1863
Q207	48E22902S01	CP., 2SC2412K
Q208	48E22093S01	CP., DTC114EK
Q209	48E26534S01	CP., DTC143ZK
Q210	48E26534S01	CP., DTC143ZK
Q211	48E26534S01	CP., DTC143ZK
Q212	48E26534S01	CP., DTC143ZK
Q213	48E26534S01	CP., DTC143ZK
Q214	48E26534S01	CP., DTC143ZK
Q215	48E26534S01	CP., DTC143ZK
Q216	48E26534S01	CP., DTC143ZK
Q217	48E22093S01	CP., DTC114EK
Q301	48T63788F01	2SD1328
Q302	48T63788F01	2SD1328
Q303	48T63788F01	2SD1328
Q304	48T63788F01	2SD1328
Q305	48T63788F01	2SD1328
Q306	48T63788F01	2SD1328
Q307	48T63788F01	2SD1328
Q308	48T63788F01	2SD1328
Q401	48E22900S01	CP., 2SA1037K
Q402	48E22902S01	CP., 2SC2412K
Q403	48E22555S01	CP., DTC144EK
Q404	48E22901S01	CP., DTA114EK
Q406	48E22555S01	CP., DTC144EK

Symbol No.	Part No.	Description
Q408	48E09399S01	2SB1243
Q409	48E24407S01	CP., DTC123EK
Q410	48E24349S01	KTB988
Q411	48E10426S01	CP., DTC124EK
Q412	48E22094S01	CP., DTC114YK
Q413	48E22900S01	CP., 2SA1037K
Q414	48E26527S01	KSC2690A
Q415	48E05943S01	KSA1220A
Q416	48E26527S01	KSC2690A
Q417	48E05943S01	KSA1220A
Q418	48E22494S01	KTD2058A
Q419	48E22877S01	2SC3693
Q420	48E09088S02	KTC3198
Q421	48E09399S01	2SB1243
Q422	48E22555S01	CP., DTC144EK

Diodes

D101	48T55247W01	11EQS04
D102	48E22916S01	1SS133
D201	48E22916S01	1SS133
D202	48E22916S01	1SS133
D203	48E20758S01	11ES2
D204	48E20758S01	11ES2
D205	48E22916S01	1SS133
D206	48E22916S01	1SS133
D209	48E22916S01	1SS133
D210	48E22916S01	1SS133
D301	48E22916S01	1SS133
D302	48E22916S01	1SS133
D303	48E22916S01	1SS133
D401	48E20758S01	11ES2
D402	48T68580F06	DSA3A4
D403	48E26557S01	1SS136
D404	48E26557S01	1SS136
D405	48T55247W01	11EQS04
D406	48T55247W01	11EQS04
D407	48T55247W01	11EQS04
D408	48E22916S01	1SS133
D409	48E22916S01	1SS133
D410	48E20758S01	11ES2
D411	48E20758S01	11ES2
D412	48E22916S01	1SS133
D413	48E22916S01	1SS133
D414	48E22916S01	1SS133
D415	48E22916S01	1SS133
D416	48E22916S01	1SS133
ZD101	48E24376S01	Zener, MTZJ4.3C
ZD102	48E23607S01	Zener, MTZJ5.6B
ZD103	48E23607S01	Zener, MTZJ5.6B
ZD201	48E23607S01	Zener, MTZJ5.6B
ZD202	48E24379S01	Zener, MTZJ7.5A
ZD203	48E24379S01	Zener, MTZJ7.5A
ZD204	48E24376S01	Zener, MTZJ4.3C
ZD205	48T83128F05	Zener, HZS6B2L
ZD401	48T90517F49	Zener, HZS11NB3
ZD402	48E24378S01	Zener, MTZJ5.6C
ZD403	48E22162S01	Zener, MTZJ9.1B
ZD404	48E22162S01	Zener, MTZJ9.1B
ZD405	48E24378S01	Zener, MTZJ5.6C
ZD406	48E24378S01	Zener, MTZJ5.6C
ZD407	48T83128F13	Zener, HZS7B1L

Filters

Z201	91T65112W04	EMI, CP. BK2125HS601
Z202	91T65112W04	EMI, CP. BK2125HS601
Z203	91T65112W04	EMI, CP. BK2125HS601
Z204	91T65112W04	EMI, CP. BK2125HS601
Z205	91T65112W04	EMI, CP. BK2125HS601
Z206	91T65112W04	EMI, CP. BK2125HS601
Z207	91T65112W04	EMI, CP. BK2125HS601
Z208	91T65112W04	EMI, CP. BK2125HS601
Z209	91T65112W04	EMI, CP. BK2125HS601
Z210	91T65112W04	EMI, CP. BK2125HS601
Z211	91T65112W04	EMI, CP. BK2125HS601
Z212	91T65112W04	EMI, CP. BK2125HS601
Z215	91T65112W04	EMI, CP. BK2125HS601
Z216	91T65112W04	EMI, CP. BK2125HS601
Z217	91T65112W04	EMI, CP. BK2125HS601
Z218	91T65112W04	EMI, CP. BK2125HS601
Z219	91T65112W04	EMI, CP. BK2125HS601

Coils/Transformer

L101	24E26537S01	Inductor, 47µH
L102	24E26537S01	Inductor, 47µH
L401	25E24351S01	Choke Trans.
L402	24E09406S01	Inductor, 1mH
L403	24E24352S01	Choke Filter
L405	24E09406S01	Inductor, 1mH
L406	24E09406S01	Inductor, 1mH
L407	24E09406S01	Inductor, 1mH
T404	25T85380W02	DC/DC Trans.

Symbol No.	Part No.	Description
Crystals		
CL203	91T15848W01	CER. Lock, 4MHz
XL201	91T45119W14	22.5792MHz
XL202	91T85169W56	9.8304MHz
XL204	91T25773W16	4MHz
Capacitors		
C101	08E26532S01	CP., 0.1µF
E101	23E08383S01	ELY., 10µF / 16V
C102	08E22085S01	CP., 0.022µF
E102	23E08383S01	ELY., 10µF / 16V
C103	08E20550S01	CP., 22pF
E103	23E08383S01	ELY., 10µF / 16V
C104	08E23259S01	CP., 0.012µF
E104	23E08383S01	ELY., 10µF / 16V
C105	08E22087S01	CP., 0.047µF
E105	23E08383S01	ELY., 10µF / 16V
E106	23E08383S01	ELY., 10µF / 16V
E107	23E08383S01	ELY., 10µF / 16V
C108	08E22085S01	CP., 0.022µF
E108	23E08383S01	ELY., 10µF / 16V
E109	23E08383S15	ELY., 1µF / 50V
C110	08E26532S01	CP., 0.1µF
E110	23E08383S15	ELY., 1µF / 50V
C111	08E26533S01	CP., 0.47µF
E111	23E08383S01	ELY., 10µF / 16V
C112	08E22549S01	CP., 68pF
E112	23E08383S01	ELY., 10µF / 16V
C113	08E22549S01	CP., 68pF
E113	23E08383S01	ELY., 10µF / 16V
C114	08E22549S01	CP., 68pF
E114	23E08383S01	ELY., 10µF / 16V
E115	23E08383S01	ELY., 10µF / 16V
E116	23E08383S01	ELY., 10µF / 16V
C117	08T55390W25	PF., 0.047µF
E117	23E08383S01	ELY., 10µF / 16V
C118	08E20550S01	CP., 22pF
E118	23E08383S01	ELY., 10µF / 16V
C119	08E26532S01	CP., 0.1µF
E119	23E08383S01	ELY., 10µF / 16V
C120	08E20550S01	CP., 22pF
E120	23E08383S01	ELY., 10µF / 16V
C121	08E26532S01	CP., 0.1µF
E121	23E08383S01	ELY., 10µF / 16V
C122	08E26536S01	PF., 3300pF
E122	23E08383S01	ELY., 10µF / 16V
C123	08E26536S01	PF., 3300pF

Symbol No.	Part No.	Description
E123	23E08383S01	ELY., 10µF / 16V
C124	08E26532S01	CP., 0.1µF
E124	23E08383S01	ELY., 10µF / 16V
C125	08E26533S01	CP., 0.47µF
E125	23E22905S01	ELY., 2.2µF / 50V
C126	08E26532S01	CP., 0.1µF
E126	23E20849S01	ELY., 100µF / 10V
C127	08E26533S01	CP., 0.47µF
E127	23E08383S13	ELY., 22µF / 16V
C128	08E26533S01	CP., 0.47µF
E128	23E08383S13	ELY., 22µF / 16V
C129	08E26532S01	CP., 0.1µF
E129	23E08383S01	ELY., 10µF / 16V
C130	08E26532S01	CP., 0.1µF
E130	23E08383S01	ELY., 10µF / 16V
C131	08E26532S01	CP., 0.1µF
E131	23E20849S01	ELY., 100µF / 10V
C132	08E26532S01	CP., 0.1µF
E132	23E08383S01	ELY., 10µF / 16V
C133	08E26532S01	CP., 0.1µF
E133	23E22905S01	ELY., 2.2µF / 50V
C134	08E22083S01	CP., 0.01µF
E134	23E20849S01	ELY., 100µF / 10V
C136	08E23557S01	CP., 390pF
C137	08E23557S01	CP., 390pF
C138	08E23557S01	CP., 390pF
C139	08E23557S01	CP., 390pF
C140	08E26532S01	CP., 0.1µF
C141	08E22549S01	CP., 68pF
C142	08E22549S01	CP., 68pF
C143	08E22549S01	CP., 68pF
C144	08E26532S01	CP., 0.1µF
C145	08E22549S01	CP., 68pF
C147	08E26532S01	CP., 0.1µF
C201	08E26532S01	CP., 0.1µF
E201	23E20849S01	ELY., 100µF / 10V
C202	08E26532S01	CP., 0.1µF
E202	23E20849S01	ELY., 100µF / 10V
C203	08E26532S01	CP., 0.1µF
E203	23E08383S01	ELY., 10µF / 16V
C204	08E26532S01	CP., 0.1µF
E204	23E08383S01	ELY., 10µF / 16V
C205	08E26532S01	CP., 0.1µF
E205	23E08383S15	ELY., 1µF / 50V
C206	08E26530S01	CP., 8pF
E206	23E08383S09	ELY., 0.33µF / 50V
C207	08E26530S01	CP., 8pF
E207	23E24370S01	ELY., 470µF / 10V
C208	08E26532S01	CP., 0.1µF

Symbol No.	Part No.	Description
E208	23E08383S01	ELY., 10µF / 16V
C209	08E26531S01	CP., 16pF
E209	23E08383S01	ELY., 10µF / 16V
C210	08E26531S01	CP., 16pF
E210	23E22905S01	ELY., 2.2µF / 50V
C211	08E22081S01	CP., 1000pF
E211	23E08383S01	ELY., 10µF / 16V
C212	08E22899S01	CP., 100pF
E212	23E20849S01	ELY., 100µF / 10V
C213	08E22899S01	CP., 100pF
E213	23E20209S01	ELY., 0.22µF / 50V
C214	08E26532S01	CP., 0.1µF
E214	23E20849S01	ELY., 100µF / 10V
C215	08E26532S01	CP., 0.1µF
C216	08E26532S01	CP., 0.1µF
C217	08E22899S01	CP., 100pF
C218	08E20767S01	CP., 3300pF
C219	08E26532S01	CP., 0.1µF
C220	08E26532S01	CP., 0.1µF
C221	08E08423S03	CP., 10pF
C222	08E08423S03	CP., 10pF
C223	08E22083S01	CP., 0.01µF
C224	08E26532S01	CP., 0.1µF
C225	08E26532S01	CP., 0.1µF
C226	08E26532S01	CP., 0.1µF
C227	08E22083S01	CP., 0.01µF
C228	08E26532S01	CP., 0.1µF
C229	08E26532S01	CP., 0.1µF
C230	08E25317S01	PF., 0.47µF
C232	08E26532S01	CP., 0.1µF
C233	08E20550S01	CP., 22pF
C234	08E20550S01	CP., 22pF
C235	08E25319S01	CER., 390pF
C236	08E25319S01	CER., 390pF
C237	08E25319S01	CER., 390pF
C238	08E20916S01	CER., 68pF
C240	08E26532S01	CP., 0.1µF
C301	08E22081S01	CP., 1000pF
E301	23E08383S01	ELY., 10µF / 16V
C302	08E26532S01	CP., 0.1µF
E302	23E08383S01	ELY., 10µF / 16V
C303	08E26535S01	PF., 470pF
E303	23E20849S01	ELY., 100µF / 10V
C304	08E26533S01	CP., 0.47µF
E304	23E20849S01	ELY., 100µF / 10V
C305	08E26535S01	PF., 470pF
E305	23E08383S16	ELY., 4.7µF / 50V
E306	23E22905S01	ELY., 2.2µF / 50V
C307	08E26533S01	CP., 0.47µF

Symbol No.	Part No.	Description
E307	23E22905S01	ELY., 2.2µF / 50V
C308	08E26535S01	PF., 470pF
E308	23E22905S01	ELY., 2.2µF / 50V
E309	23E22905S01	ELY., 2.2µF / 50V
C310	08E26535S01	PF., 470pF
E310	23E08383S10	ELY., 0.47µF / 50V
C311	08E20550S01	CP., 22pF
E311	23E08383S10	ELY., 0.47µF / 50V
C312	08E20550S01	CP., 22pF
E312	23E08383S01	ELY., 10µF / 16V
C313	08E26533S01	CP., 0.47µF
E313	23E08383S01	ELY., 10µF / 16V
C314	08E26533S01	CP., 0.47µF
E314	23E20849S01	ELY., 100µF / 10V
C315	08E26535S01	PF., 470pF
E315	23E08383S16	ELY., 4.7µF / 50V
C316	08E20550S01	CP., 22pF
E316	23E20849S01	ELY., 100µF / 10V
C317	08E26535S01	PF., 470pF
E317	23E08383S16	ELY., 4.7µF / 50V
E318	23E20208S01	ELY., 47µF / 16V
E319	23E22905S01	ELY., 2.2µF / 50V
C320	08E20550S01	CP., 22pF
E320	23E22905S01	ELY., 2.2µF / 50V
C321	08E26535S01	PF., 470pF
E321	23E22905S01	ELY., 2.2µF / 50V
C322	08E26535S01	PF., 470pF
E322	23E22905S01	ELY., 2.2µF / 50V
C323	08E20550S01	CP., 22pF
E323	23E08383S10	ELY., 0.47µF / 50V
C324	08E20550S01	CP., 22pF
E324	23E08383S10	ELY., 0.47µF / 50V
C325	08E26532S01	CP., 0.1µF
E325	23E08383S01	ELY., 10µF / 16V
C326	08E26532S01	CP., 0.1µF
E326	23E08383S01	ELY., 10µF / 16V
C327	08E22526S01	PF., 0.082µF
E327	23E20849S01	ELY., 100µF / 10V
C328	08E22526S01	PF., 0.082µF
E328	23E20849S01	ELY., 100µF / 10V
C329	08E22526S01	PF., 0.082µF
E329	23E08383S01	ELY., 10µF / 16V
C330	08E20550S01	CP., 22pF
E330	23E08383S15	ELY., 1µF / 50V
C331	08E22526S01	PF., 0.082µF
E331	23E08383S15	ELY., 1µF / 50V
C332	08E22526S01	PF., 0.082µF
E332	23E08383S15	ELY., 1µF / 50V
C333	08E20550S01	CP., 22pF

Symbol No.	Part No.	Description
E333	23E08383S15	ELY., 1µF / 50V
C334	08E22526S01	PF., 0.082µF
E334	23E22905S01	ELY., 2.2µF / 50V
C335	08E20550S01	CP., 22pF
E335	23E22905S01	ELY., 2.2µF / 50V
C336	08E20550S01	CP., 22pF
E336	23E08383S10	ELY., 0.47µF / 50V
C337	08E26533S01	CP., 0.47µF
E337	23E08383S10	ELY., 0.47µF / 50V
C338	08E26533S01	CP., 0.47µF
E338	23E08383S01	ELY., 10µF / 16V
C339	08E26533S01	CP., 0.47µF
E339	23E08383S01	ELY., 10µF / 16V
C340	08E22081S01	CP., 1000pF
E340	23E20208S01	ELY., 47µF / 16V
C341	08E26532S01	CP., 0.1µF
E341	23E08383S16	ELY., 4.7µF / 50V
C342	08E26533S01	CP., 0.47µF
E342	23E22905S01	ELY., 2.2µF / 50V
C343	08E26533S01	CP., 0.47µF
E343	23E22905S01	ELY., 2.2µF / 50V
C344	08E26533S01	CP., 0.47µF
E344	23E20208S01	ELY., 47µF / 16V
C345	08E26533S01	CP., 0.47µF
E345	23E08383S16	ELY., 4.7µF / 50V
C346	08E20550S01	CP., 22pF
E346	23E20849S01	ELY., 100µF / 10V
C347	08E20550S01	CP., 22pF
E347	23E20849S01	ELY., 100µF / 10V
E348	23E08383S16	ELY., 4.7µF / 50V
C349	08E20916S01	CER., 68pF
E349	23E20849S01	ELY., 100µF / 10V
C350	08E20916S01	CER., 68pF
E350	23E08383S16	ELY., 4.7µF / 50V
E351	23E20849S01	ELY., 100µF / 10V
E352	23E08383S16	ELY., 4.7µF / 50V
E353	23E20208S01	ELY., 47µF / 16V
E354	23E22905S01	ELY., 2.2µF / 50V
E355	23E22905S01	ELY., 2.2µF / 50V
E356	23E08383S15	ELY., 1µF / 50V
E357	23E08383S15	ELY., 1µF / 50V
C401	08T55390W17	PF., 0.01µF
E401	23E20849S01	ELY., 100µF / 10V
C402	08E22087S01	CP., 0.047µF
E402	23E08383S01	ELY., 10µF / 16V
C403	08E22083S01	CP., 0.01µF
E403	23E10238S01	ELY., 100µF / 16V
C404	08E22089S01	CP., 6800pF
E404	23E08383S01	ELY., 10µF / 16V

Symbol No.	Part No.	Description
C405	08E23557S01	CP., 390pF
E405	23E08383S01	ELY., 10µF / 16V
E406	23E08383S01	ELY., 10µF / 16V
C407	08E20916S01	CER., 68pF
E407	23E24370S01	ELY., 470µF / 10V
E408	23E08383S01	ELY., 10µF / 16V
E409	23E24400S01	ELY., 470µF / 16V
E410	23E23850S01	ELY., 220µF / 16V
E411	23E08383S01	ELY., 10µF / 16V
E412	23E09551S07	ELY., 1000µF / 16V
C413	08E22549S01	CP., 68pF
E413	23E23850S01	ELY., 220µF / 16V
E414	23E08383S01	ELY., 10µF / 16V
E415	23E09551S07	ELY., 1000µF / 16V
E416	23E09551S07	ELY., 1000µF / 16V
E417	23E24368S01	ELY., 10µF / 50V
E418	23E24368S01	ELY., 10µF / 50V
E419	23E24367S01	ELY., 1000µF / 16V
E420	23E08383S01	ELY., 10µF / 16V
E421	23E08383S01	ELY., 10µF / 16V
E422	23E20849S01	ELY., 100µF / 10V
E423	23E20849S01	ELY., 100µF / 10V

Resistors		(All resistors are chip 1/10W±5% unless otherwise noted.)
R101	06E24361S01	13K ohm
R102	06E24360S01	220 ohm
R103	06E24361S01	13K ohm
R104	06E24362S01	18K ohm
R105	06E24362S01	18K ohm
R106	06E22062S01	47K ohm
R107	06E24360S01	220 ohm
R108	06E24361S01	13K ohm
R109	06E24362S01	18K ohm
R110	06E24362S01	18K ohm
R111	06E22062S01	47K ohm
R112	06E24361S01	13K ohm
R113	06E20903S01	10K ohm
R114	06E20903S01	10K ohm
R115	06E20903S01	10K ohm
R116	06E20903S01	10K ohm
R117	06E22051S01	2.2K ohm
R118	06E22060S01	22K ohm
R119	06E20903S01	10K ohm
R120	06E22062S01	47K ohm
R121	06E22055S01	4.7K ohm
R122	06E22060S01	22K ohm
R123	06E22062S01	47K ohm

Symbol No.	Part No.	Description
R124	06E24360S01	220 ohm
R125	06E24361S01	13K ohm
R126	06E24361S01	13K ohm
R127	06E24362S01	18K ohm
R128	06E22062S01	47K ohm
R129	06E24362S01	18K ohm
R130	06E24362S01	18K ohm
R131	06E24362S01	18K ohm
R132	06E22062S01	47K ohm
R133	06E24360S01	220 ohm
R134	06E24361S01	13K ohm
R135	06E24361S01	13K ohm
R136	06E24360S01	220 ohm
R137	06E24361S01	13K ohm
R138	06E24361S01	13K ohm
R139	06E24362S01	18K ohm
R140	06E24362S01	18K ohm
R141	06E22062S01	47K ohm
R142	06E24360S01	220 ohm
R143	06E24361S01	13K ohm
R144	06E24362S01	18K ohm
R145	06E24362S01	18K ohm
R146	06E22062S01	47K ohm
R147	06E24361S01	13K ohm
R148	06E22051S01	2.2K ohm
R149	06E22048S01	1K ohm
R150	06E20903S01	10K ohm
R151	06E22505S01	470 ohm
R155	06E22048S01	1K ohm
R156	06E22048S01	1K ohm
R157	06E22048S01	1K ohm
R158	06E22048S01	1K ohm
R159	06E22048S01	1K ohm
R160	06E22048S01	1K ohm
R161	06E22048S01	1K ohm
R162	06E22508S01	20K ohm
R163	06E22055S01	4.7K ohm
R164	06E22060S01	22K ohm
R165	06E24189S01	150 ohm
R166	06E22508S01	20K ohm
R167	06E22060S01	22K ohm
R168	06E24189S01	150 ohm
R169	06E22055S01	4.7K ohm
R170	06E22062S01	47K ohm
R171	06E22065S01	100K ohm
R172	06E22065S01	100K ohm
R173	06E24358S01	62K ohm
R174	06E22051S01	2.2K ohm
R175	06E24359S01	110K ohm

Symbol No.	Part No.	Description
R176	06E20903S01	10K ohm
R177	06E20903S01	10K ohm
R201	06E22068S01	1M ohm
R202	06E22068S01	1M ohm
R203	06E20903S01	10K ohm
R204	06E20903S01	10K ohm
R205	06E22060S01	22K ohm
R206	06E22068S01	1M ohm
R207	06E23575S01	330K ohm
R208	06E22067S01	470K ohm
R209	06E22062S01	47K ohm
R210	06E22062S01	47K ohm
R211	06E20903S01	10K ohm
R212	06E20903S01	10K ohm
R213	06E22062S01	47K ohm
R214	06E22507S01	15K ohm
R215	06E22057S01	8.2K ohm
R216	06E20904S01	27K ohm
R217	06E20903S01	10K ohm
R218	06E22062S01	47K ohm
R219	06E24371S01	M.O., 82 ohm 1/2W
R220	06E22051S01	2.2K ohm
R221	06E24371S01	M.O., 82 ohm 1/2W
R222	06E21164S01	1.5K ohm
R223	06E22066S01	220K ohm
R224	06E21164S01	1.5K ohm
R225	06E22060S01	22K ohm
R226	06E22051S01	2.2K ohm
R228	06E20903S01	10K ohm
R229	06E22064S01	68K ohm
R230	06E20851S01	43K ohm
R231	06E22898S01	36K ohm
R232	06E22111S01	5.6K ohm
R233	06E20903S01	10K ohm
R234	06E22060S01	22K ohm
R235	06E22060S01	22K ohm
R237	06E20903S01	10K ohm
R238	06E20903S01	10K ohm
R240	06E22048S01	1K ohm
R241	06E22048S01	1K ohm
R242	06E22048S01	1K ohm
R243	06E22048S01	1K ohm
R244	06E22048S01	1K ohm
R245	06E22048S01	1K ohm
R246	06E22048S01	1K ohm
R247	06E22048S01	1K ohm
R249	06E22065S01	100K ohm
R250	06E22055S01	4.7K ohm
R251	06E20903S01	10K ohm

Symbol No.	Part No.	Description
R252	06E22543S01	39 ohm
R253	06E22060S01	22K ohm
R254	06E22060S01	22K ohm
R255	06E22060S01	22K ohm
R256	06E22060S01	22K ohm
R258	06E22065S01	100K ohm
R259	06E22060S01	22K ohm
R260	06E22060S01	22K ohm
R261	06E20903S01	10K ohm
R263	06E22548S01	470 ohm 1/4W
R265	06E22548S01	470 ohm 1/4W
R267	06E22548S01	470 ohm 1/4W
R269	06E22048S01	1K ohm
R270	06E22048S01	1K ohm
R271	06E22048S01	1K ohm
R272	06E22048S01	1K ohm
R273	06E22048S01	1K ohm
R274	06E22048S01	1K ohm
R292	06E20903S01	10K ohm
R293	06E20903S01	10K ohm
R294	06E20903S01	10K ohm
R295	06E20903S01	10K ohm
R296	06E20903S01	10K ohm
R297	06E20903S01	10K ohm
R298	06E20903S01	10K ohm
R299	06E20903S01	10K ohm
R301	06E22054S01	3.9K ohm
R302	06E22054S01	3.9K ohm
R303	06E22054S01	3.9K ohm
R304	06E22054S01	3.9K ohm
R305	06E24363S01	4.7K ohm 1/4W
R306	06E22055S01	4.7K ohm
R307	06E22055S01	4.7K ohm
R309	06E24363S01	4.7K ohm 1/4W
R312	06E24363S01	4.7K ohm 1/4W
R313	06E24363S01	4.7K ohm 1/4W
R315	06E22055S01	4.7K ohm
R316	06E22055S01	4.7K ohm
R317	06E22048S01	1K ohm
R318	06E22048S01	1K ohm
R319	06E20903S01	10K ohm
R320	06E22927S01	120K ohm
R321	06E22059S01	18K ohm
R323	06E22927S01	120K ohm
R325	06E22059S01	18K ohm
R326	06E20903S01	10K ohm
R327	06E22062S01	47K ohm
R328	06E20752S01	220 ohm 1/4W
R329	06E22041S01	100 ohm

Symbol No.	Part No.	Description
R330	06E22062S01	47K ohm
R331	06E20752S01	220 ohm 1/4W
R332	06E22041S01	100 ohm
R335	06E24363S01	4.7K ohm 1/4W
R336	06E24363S01	4.7K ohm 1/4W
R338	06E22055S01	4.7K ohm
R339	06E22055S01	4.7K ohm
R346	06E22055S01	4.7K ohm
R347	06E22055S01	4.7K ohm
R349	06E22048S01	1K ohm
R350	06E22048S01	1K ohm
R351	06E22927S01	120K ohm
R352	06E22059S01	18K ohm
R353	06E20903S01	10K ohm
R356	06E22927S01	120K ohm
R357	06E22059S01	18K ohm
R358	06E20903S01	10K ohm
R359	06E22062S01	47K ohm
R360	06E20752S01	220 ohm 1/4W
R361	06E22041S01	100 ohm
R362	06E22062S01	47K ohm
R363	06E20752S01	220 ohm 1/4W
R364	06E22041S01	100 ohm
R365	06E23258S01	2.2 ohm 1/4W
R367	06E24363S01	4.7K ohm 1/4W
R368	06E24363S01	4.7K ohm 1/4W
R369	06E22055S01	4.7K ohm
R370	06E22055S01	4.7K ohm
R371	06E22055S01	4.7K ohm
R372	06E20903S01	10K ohm
R373	06E22062S01	47K ohm
R374	06E20903S01	10K ohm
R375	06E22062S01	47K ohm
R376	06E20903S01	10K ohm
R377	06E20903S01	10K ohm
R378	06E22055S01	4.7K ohm
R379	06E22055S01	4.7K ohm
R380	06E22055S01	4.7K ohm
R381	06E22048S01	1K ohm
R382	06E22048S01	1K ohm
R383	06E22927S01	120K ohm
R384	06E22953S01	30K ohm
R385	06E22048S01	1K ohm
R387	06E22927S01	120K ohm
R389	06E22048S01	1K ohm
R390	06E22953S01	30K ohm
R391	06E22062S01	47K ohm
R392	06E20752S01	220 ohm 1/4W
R393	06E22041S01	100 ohm

Symbol No.	Part No.	Description
R394	06E22062S01	47K ohm
R395	06E20752S01	220 ohm 1/4W
R396	06E22041S01	100 ohm
R401	06E22058S01	12K ohm
R402	06E22546S01	51K ohm
R403	06E22065S01	100K ohm
R404	06E22055S01	4.7K ohm
R405	06E22545S01	2K ohm
R406	06E22065S01	100K ohm
R407	06E22547S01	680K ohm
R408	06E22545S01	2K ohm
R409	06E22068S01	1M ohm
R410	06E23835S01	9.1 ohm 1/4W
R411	06E23835S01	9.1 ohm 1/4W
R412	06E23902S01	2.4K ohm 1/4W
R413	06E23902S01	2.4K ohm 1/4W
R414	06E23902S01	2.4K ohm 1/4W
R416	06E23835S01	9.1 ohm 1/4W
R417	06E23835S01	9.1 ohm 1/4W
R418	06E20903S01	10K ohm
R419	06E20903S01	10K ohm
R420	06E23902S01	2.4K ohm 1/4W
R421	06E23902S01	2.4K ohm 1/4W
R422	06E23902S01	2.4K ohm 1/4W
R423	06E22048S01	1K ohm
R424	06E26529S01	75 ohm
R425	06E24356S01	180 ohm
R426	06E22928S01	43 ohm 1/4W
R427	06E24356S01	180 ohm
R428	06E22928S01	43 ohm 1/4W
R429	06E24363S01	4.7K ohm 1/4W
R430	06E22048S01	1K ohm
R431	06E22929S01	3.3K ohm 1/4W
R432	06E20903S01	10K ohm
R433	06E20903S01	10K ohm
R434	06E20545S01	33 ohm 1/4W
R435	06E20903S01	10K ohm
R436	06E22076S01	2.2K ohm 1/4W
R437	06E20903S01	10K ohm
R607	06E22065S01	100K ohm
R608	06E22065S01	100K ohm
R609	06E22065S01	100K ohm
R610	06E22065S01	100K ohm

Symbol No.	Part No.	Description
Front P.C.Board		
IC		
IC001	51E20548S01	NJU6432BF
Switches		
SW901	40T75234W01	Tact, SKQNAC (MODE/SUB W)
SW902	40E23611S01	Tact, EVQPJU (EQ/DEF.)
SW903	40T75234W01	Tact, SKQNAC (LEFT)
SW904	40T75234W01	Tact, SKQNAC (DOWN)
SW905	40T75234W01	Tact, SKQNAC (TCR)
SW906	40E23611S01	Tact, EVQPJU (MEMO)
SW907	40T75234W01	Tact, SKQNAC (RIGHT)
SW908	40T75234W01	Tact, SKQNAC (UP)
SW909	40T75234W01	Tact, SKQNAC (RESET)
Diode		
ZD901	48E22944S01	Zener, MTZJ5.1B
Lamps		
PL901	65T75232W01	6V-80mA
PL902	65T75232W01	6V-80mA
PL903	65T85125W02	9V-100mA
Thermistor		
TH901	48T35484W05	CP., 10K ohm
Capacitors		
C901	08E08423S06	CP., 680pF
E901	23E09402S02	ELY., 10µF / 16V
C902	08E26533S01	CP., 0.47µF
Resistors		(All resistors are chip 1/10W±5% unless otherwise noted.)
R902	06E22052S01	2.7K ohm
R903	06E22054S01	3.9K ohm
R904	06E22057S01	8.2K ohm
R905	06E22546S01	51K ohm
R907	06E22052S01	2.7K ohm

Symbol No.	Part No.	Description
R908	06E22054S01	3.9K ohm
R909	06E22057S01	8.2K ohm
R910	06E26541S01	160 ohm
R916	06E25234S01	13 ohm 1/4W
R918	06E25413S01	360 ohm 1/4W
R919	06E23857S01	510 ohm
R920	06E23857S01	510 ohm
R921	06E23857S01	510 ohm
R922	06E23857S01	510 ohm

Miscellaneous

DIN001	09T55071W12	CHANGER IN Connector
DIN002	09T55071W12	Ai-NET IN Connector
DIN003	09E24355S01	13P Connector (From CONTROL UNIT)
ET001	09E22881S01	POWER SUPPLY Connector
ET011	01E26540S01	Assy., 13P Connector (To Main Unit)
IC111	51T45265W02	IC, TORX193 (DIGITAL INPUT · CD)
IC112	51T45265W02	IC, TORX193 (DIGITAL INPUT · CHANGER)
JK001	09E24353S01	RCA Jack, INPUT
JK002	09E24354S01	RCA Jack, OUTPUT
JK003	09E26528S01	Jack, MIC
LCD001	65T15016Y01	LCD Display
LED001	48E26539S01	LED Module Unit

Symbol No.	Part No.	Description

Cabinet Assembly Parts List

● Main Unit

NOTE:No parts number on parts list are not supplied.

Symbol No.	Index	Part No.	Description
4		03E09416S09	Screw, TPG-TPT (M3X10)
5	5-G	03E09417S05	Screw, MCH-TPT (M2.6X5)
6		03E09417S01	Screw, MCH-TPT (M2.6X5)
7		03E23709S01	Screw, TPG-TPT (M2.6X8)
8	1-G	15E26543S01	Cover, Plate
or	1-G	15E26544S01	Cover, Plate
10	1-E	26E26548S01	Sheet
11	1-E	56E26549S01	Scale, Plate
or		56E26550S01	Scale, Plate
13	3-E	03E09416S01	Screw, TPG-TPT (M3X8)
14	3-G	03E22133S01	Screw, MCM-TPT (M2.6X6)
19		03E26538S01	Screw, TPG-TPT (M2.6X11)

Symbol No.	Index	Part No.	Description

● Control Unit

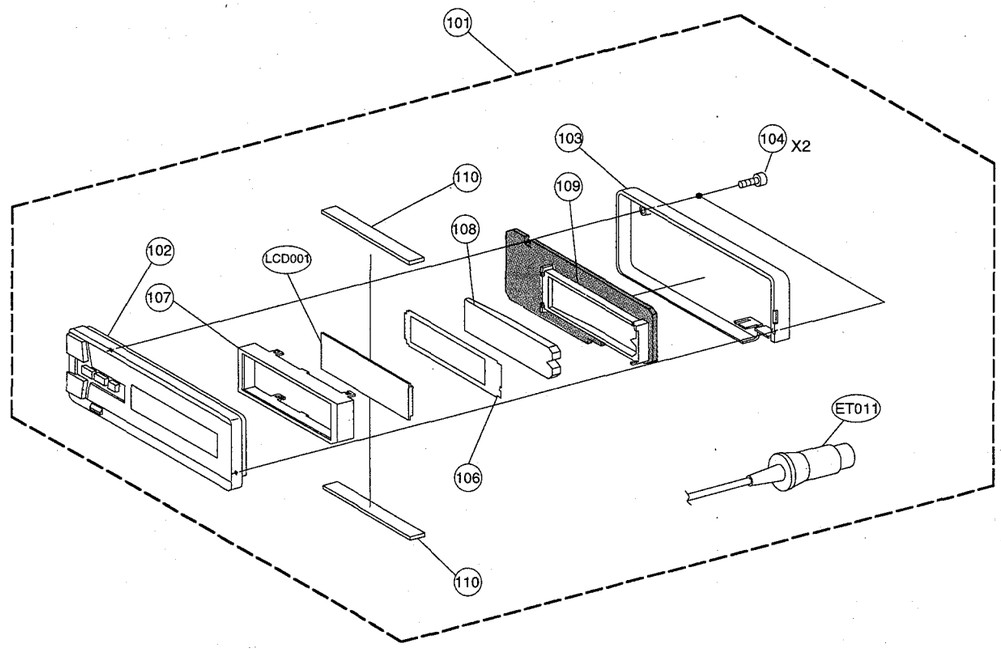
NOTE:No parts number on parts list are not supplied.

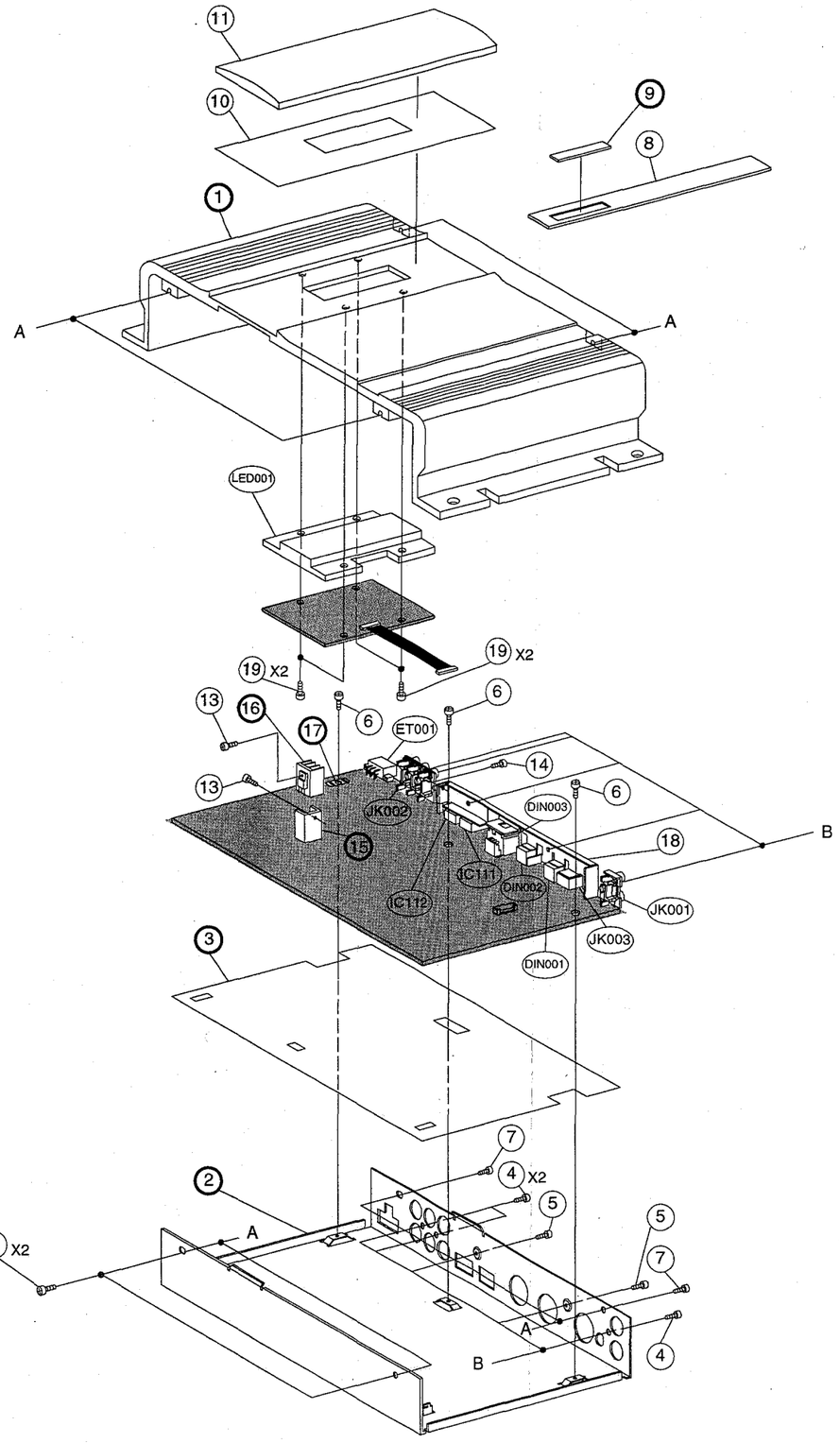
Symbol No.	Index	Part No.	Description
○ 101	2-C	01E26551S01	Assy., Control Unit
△ 101	2-C	01E26572S01	Assy., Control Unit
□ 101	2-C	01E26551S01	Assy., Control Unit
102	3-B	13E26552S01	Assy., Nosepiece
103		15E25230S01	Nose, Bottom
104	3-D	03E23665S01	Screw, TPG (M1.7X12)
106	4-C	26A70309W01	Reflector, Sheet (A)
107	3-B	15E25232S01	Cover, LCD
108	3-C	61A22998S01	Lens, LCD
109	3-C	15E22999S01	Case, LCD
110		75T75143W02	Rubber, Electric

Symbol No.	Index	Part No.	Description

NOTE : ○: For North American Model Only, △: For General Foreign Model Only,
□: For Japanese Model Only, Others : Common.

Exploded View (Cabinet)

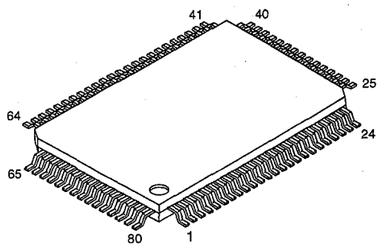




Semi-Conductor Lead Identifications

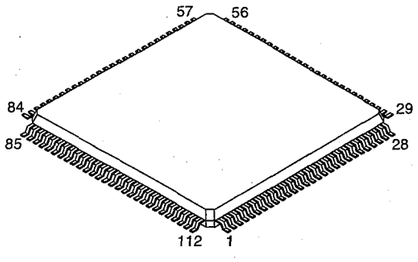
NOTE : For the parts not mentioned, refer to the Schematic Diagram.

LC83015J : IC208



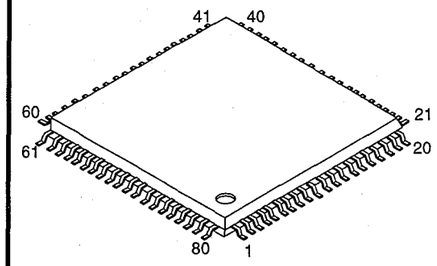
PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	P0	I/O	21	$\overline{CAS}$	O	41	A7	O	61	AOWCK	O
2	P1	I/O	22	$\overline{DWRT}$	O	42	A8	O	62	ASO	O
3	P2	I/O	23	$\overline{DREAD}$	O	43	A9	O	63	AOTDF1	O
4	P3	I/O	24	$\overline{CE/CS}$	O	44	A10	O	64	AOTDF2	O
5	P4	I/O	25	D7	I/O	45	A11	O	65	SI	I
6	P5	I/O	26	D6	I/O	46	A12	O	66	SICK	I
7	ASI1	I	27	D5	I/O	47	A13	O	67	$\overline{SIRQ}$	I
8	BCK1	I	28	D4	I/O	48	A14	O	68	$\overline{SIAK}$	O
9	FS384I	I	29	D3	I/O	49	A15	O	69	$\overline{SRDY}$	I
10	LRCK1	I	30	D2	I/O	50	A16	O	70	SO	O
11	ASI2	I	31	D1	I/O	51	V_{DD2}	—	71	SOCK	I
12	BCK2	I	32	D0	I/O	52	OSC1	I	72	$\overline{SORQ}$	I
13	V_{DD1}	—	33	V_{SS2}	—	53	OSC2	O	73	$\overline{SOAK}$	O
14	TEST1	I	34	A0	O	54	V_{SS3}	—	74	V_{SS4}	—
15	TEST2	I	35	A1	O	55	FS384O	O	75	$\overline{RES}$	I
16	TEST3	I	36	A2	O	56	FS192O	O	76	$\overline{INT}$	I
17	TEST4	I	37	A3	O	57	FS128O	O	77	V_{DD3}	—
18	V_{SS1}	I	38	A4	O	58	FS64O	O	78	$\overline{SELC}$	I
19	TEST5	O	39	A5	O	59	FS32O	O	79	$\overline{SACK1}$	I
20	$\overline{RAS}$	O	40	A6	O	60	LRCKO	O	80	$\overline{SACK2}$	I

DSP56156 : IC209



PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	GND4	—	29	MIC	I	57	H6/PB6	I/O	85	MODB/$\overline{IRQB}$	I
2	D2	I/O	30	AUX	I	58	H5/PB5	I/O	86	MODC	I
3	D3	I/O	31	BIAS	I	59	V_{CC6}	—	87	A0	O
4	V_{CC3}	—	32	$\overline{BG}$	I/O	60	H2/PB2	I/O	88	A1	O
5	D4	I/O	33	V_{CCQ0}	—	61	H3/PB3	I/O	89	GND0	—
6	D5	I/O	34	$\overline{BR}$	I/O	62	H4/PB4	I/O	90	A2	O
7	GND5	—	35	$\overline{BB}$	I/O	63	SRD1/PC6	I	91	A3	O
8	D6	I/O	36	V_{CC5}	—	64	STD1/PC5	O	92	V_{CC1}	—
9	D7	I/O	37	$\overline{WR}$	O	65	H1/PB1	I/O	93	A4	O
10	D8	I/O	38	GND8	—	66	H0/PB0	I/O	94	A5	O
11	D9	I/O	39	$\overline{RD}$	O	67	$\overline{HREQ}$/PB13	O	95	GND1	—
12	GND6	—	40	PS/$\overline{DS}$	O	68	$\overline{HACK}$/PB14	I	96	V_{CCQ1}	—
13	D10	I/O	41	$\overline{BS}$	O	69	$\overline{HEN}$/PB12	I	97	A6	O
14	D11	I/O	42	R/$\overline{W}$	O	70	HR/$\overline{W}$/PB11	I	98	A7	O
15	V_{CC4}	—	43	DSO	O	71	HA2/PB10	I	99	A8	O
16	D12	I/O	44	DSCK/DS1	I/O	72	HA1/PB9	I	100	A9	O
17	D13	I/O	45	DSI/OS0	I/O	73	GND10	—	101	GND2	—
18	GND7	—	46	CLKO	O	74	HA0/PB8	I	102	A10	O
19	D14	I/O	47	GNDQ0	—	75	TOUT/PC11	O	103	V_{CC2}	—
20	D15	I/O	48	GNDS	—	76	V_{CC7}	—	104	GNDQ1	—
21	$\overline{TA}$	I	49	SXFC	I	77	TIN/PC10	I	105	A11	O
22	$\overline{DR}$	I	50	V_{CCS}	—	78	SC00/PC4	I/O	106	A12	O
23	V_{CCA}	—	51	EXTAL	I	79	SC10/PC3	I/O	107	A13	O
24	SPKP	O	52	SC01/PC9	I/O	80	SCK0/PC2	I/O	108	GND3	—
25	SPKM	O	53	GND9	—	81	SRD0/PC1	I	109	A14	O
26	GNDA	—	54	SC11/PC8	I/O	82	STD0/PC0	O	110	A15	O
27	VDIV	—	55	SCK1/PC7	I/O	83	$\overline{RESET}$	I	111	D0	I/O
28	VREF	—	56	H7/PB7	I/O	84	MODA/$\overline{IRQA}$	I	112	D1	I/O

75099W69 : IC210



PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	NC	—	21	HA1	O	41	$\overline{DF\,RES}$	O	61	$\overline{HREQ}$	I
2	P. CONT	O	22	HA2	O	42	D. SEL	O	62	MIC	I
3	V. STB	O	23	HR/$\overline{W}$	O	43	LED 9	O	63	PANEL (FRONT)	I
4	AVSS	—	24	$\overline{HEN}$	O	44	E SDA	I/O	64	ERR	I
5	V. DATA	O	25	$\overline{HACK}$	O	45	E SCL	O	65	STBY	I
6	V. CLK	O	26	$\overline{HRESET}$	O	46	LED8	O	66	BUS IRQ	I
7	VA_{REF1}	—	27	H0	I/O	47	LED7	O	67	BUS TRG	I
8	L $\overline{RES}$	O	28	H1	I/O	48	LED6	O	68	+5V	—
9	L $\overline{SRDY}$	O	29	H2	I/O	49	LED5	O	69	X2	—
10	L $\overline{SIAK}$	I	30	H3	I/O	50	LED4	O	70	X1	I
11	GND	—	31	H4	I/O	51	LED3	O	71	IC	—
12	L SI	O	32	H5	I/O	52	LED2	O	72	NC	—
13	L SICK	O	33	V_{SS}	—	53	LED1	O	73	GND	—
14	BUS RS	O	34	H6	I/O	54	ASEL B	O	74	AV_{DD}	—
15	BUS R/$\overline{W}$	O	35	H7	I/O	55	ASEL A	O	75	AV_{REF}	—
16	BUS SOUT	I	36	OPT SEL A	O	56	D. DATA	O	76	OVER	I
17	BUS SIN	O	37	OPT SEL B	O	57	D. CLK	O	77	KEY2	I
18	BUS SCLK	O	38	A. MUTE	O	58	D. INH	O	78	KEY1	I
19	BUS RES	O	39	MODE AB	O	59	D. CE	O	79	LEVEL	O
20	HA0	O	40	L. $\overline{SIRQ}$	O	60	$\overline{RESET}$	I	80	OUT REM	O